2024-2025

This booklet contains tests for
Art (grades 4-6)
Calculator Applications (grades 6-8)
Chess Puzzle (grades 2-8)
Creative Writing (grade 2)
Dictionary Skills (grades 5-6)
Listening Skills (grades 5-6)
Maps, Graphs & Charts (grades 5-6)
Mathematics (grades 6-8)
Number Sense (grades 4-6)
Ready Writing (grades 3-6)
Science (now grades 6-8)
Social Studies (grades 5-6)
Storytelling (grades 2-3)

Duplicate materials as needed. For contest rules, refer to the A+ Handbook or UIL website.

ELEMENTARY ACADEMIC STUDY MATERIALS BOOKLET

www.uiltexas.org/aplus

UIL
UNIVERSITY INTERSCHOLASTIC LEAGUE

University Interscholastic League

A+ Art Contest Part A • Answer Sheet

*NOTE: Contestants are required to list only the artist's last name (as it appears on the Official List) for Part A. However, there is **no penalty** if contestants also list the artist's first name. Scoring is based on correctness of the artist's last name and the title of the work.*

Write your contestant number in the upper right corner, and circle your grade below.

Circle Grade Level: **4   5   6   7   8**

ARTIST   **PAINTING**

1. _____   _____
2. _____   _____
3. _____   _____
4. _____   _____
5. _____   _____
6. _____   _____
7. _____   _____
8. _____   _____
9. _____   _____
10. _____   _____
11. _____   _____
12. _____   _____
13. _____   _____
14. _____   _____
15. _____   _____

UiL

**University Interscholastic League
A+ Art Contest Part B • Answer Sheet**

Write your contestant number in the upper right corner, and circle your grade below.

Circle Grade Level: 4   5   6   7   8

Art Elements & Principles

1. A   B   C   D
2. A   B   C   D
3. A   B   C   D
4. A   B   C   D
5. A   B   C   D
6. A   B   C   D
7. A   B   C   D
8. A   B   C   D
9. A   B   C   D
10. A   B   C   D
11. True   False
12. True   False
13. True   False
14. True   False
15. True   False

Art History

16. A   B   C   D
17. A   B   C   D
18. A   B   C   D
19. A   B   C   D
20. A   B   C   D
21. A   B   C   D
22. A   B   C   D
23. A   B   C   D
24. A   B   C   D
25. A   B   C   D
26. True   False
27. True   False
28. True   False
29. True   False
30. True   False

Art Practice Test- Grades 4-6
Art Elements and Principles Section

1. Blue and Yellow combine to make what color?
   a) Brown   c) Purple
   b) Pink   d) Green

2. How many primary colors are there?
   a) 2   c) 6
   b) 3   d) 12

3. Paintings of single formally posed people are called what?
   a) Landscape paintings
   b) Portraits
   c) Genre scenes
   d) Still lifes

4. What is the focal point of a work of art?
   a) The center of the piece
   b) The part of the piece that commands the viewer's attention
   c) The foreground
   d) The most colorful part of the piece

5. The way individual art elements work together to form a complete painting is called
   a) Form   c) Perspective
   b) Composition   d) Contrast

6. Which of these is an example of a painting subject?
   a) Genre painting   c) Portrait
   b) Still life   d) All of the above

7. What technique uses high contrast between light and shadow to create a dramatic effect?
   a) Silk screening
   b) Tempera
   c) Chiaroscuro
   d) Abstraction

8. What effect are jagged or zigzagged lines most likely to have in painting?
   a) A sense of fluid and graceful movement
   b) A sense of danger and instability
   c) A sense of height and grandeur
   d) A sense of rigidity and stiffness

9. Which of the following is INCORRECT? Artists often use color to
   a) create contrast in an image
   b) create mood
   c) create harmony
   d) create perspective

10. An artist's complete body of work is called their
   a) subject   c) oeuvre
   b) palette   d) Style

True/False
11. Red is a cool color.

12. Blue and orange are complementary colors.

13. Abstract art does not depict reality.

14. Neutral colors create contrast against brighter colors.

15. A still life is a painting of a person at rest.

Art History Section

16. Which of these artists was active during the Renaissance Period?
   a) Edvard Munch
   b) Johannes Vermeer
   c) Titian
   d) Barent Fabritius

17. Pablo Picasso was from what country?
    a) France   c) Mexico
    b) Spain   d) Italy

18. What is the subject of *Delphina Flores* by Diego Rivera?
    a) A young Otomi girl
    b) A famous diplomat
    c) A large red flower
    d) Diego Rivera's wife

19. Andy Warhol was part of which art movement?
    a) Abstract Expressionism
    b) Cubism
    c) The Harlem Renaissance
    d) Pop Art

20. *Noah Leading the Animals into the Arc* is an example of
    a) an oil sketch
    b) a religious painting
    c) a baroque painting
    d) All of the above

21. What did Monet intend *Weeping Willow* to be?
    a) A celebration of life
    b) An exercise in light and color
    c) A response to the tragedies of World War One
    d) An optimistic painting for rural Americans

22. What was the birthplace of the Renaissance?
    a) Madrid   c) Amsterdam
    b) Florence   d) Paris

23. What subject is Alice Neel famous for?
    a) Portraits   c) Abstract
    b) Landscapes   d) Genre

24. What medium did Garofalo use to create *Madonna and Child with St. Jerome*?
    a) Watercolors   c) Oil paint
    b) Tempera   d) Colored pencils

25. In what period was Henri Matisse creating art?
    a) Renaissance
    b) Baroque
    c) Modern
    d) Contemporary

True/False

26. During the Renaissance period, most artists were employed by the Catholic Church.

27. Most art produced during the Dutch Golden Age were large elaborate religious paintings.

28. Regionalism depicted rural America during the early 20th Century.

29. Caravaggio was able to create so many paintings because he lived a long and peaceful life in Northern Italy.

30. *Banquet Still Life with Roses* by van Beyeren is an example of impressionism.
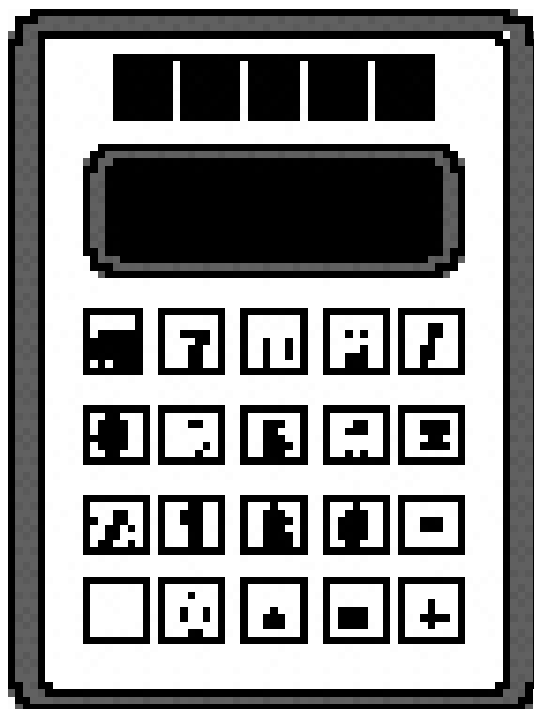
Art Practice Test- Grades 4-6

Key

1. D
2. B
3. B
4. B
5. B
6. D
7. C
8. B
9. D
10. C
11. B
12. A
13. A
14. A
15. B
16. C
17. B
18. A
19. D
20. D
21. C
22. B
23. A
24. C
25. C
26. A
27. B
28. A
29. B
30. B

University Interscholastic League

Calculator Applications

DO NOT OPEN TEST
UNTIL TOLD TO DO SO

2023 – 2024 UIL MS Calculator Test A

24A–1.   –5410 – 7000 -- 1=_____

24A–2.   77 – 8 – 10 -- 2=_____

24A–3.   81 + 553 + 379 -- 3=_____

24A–4.   39 – 41 – 22 – 31 --- 4=_____

24A–5.   2510 – 7510 – 7260 – 3740 ------------------------------ 5=_____

24A–6.   355 – 88.9 – 505 – 211 + 487 --------------------------- 6=_____

24A–7.   4.38 – 0.983 + 2.5 – 6.24 – 2.61 ------------------------ 7=_____

24A–8.   1.68 + 0.626 + 1.24 + 2.32 + 0.592 --------------------- 8=_____

24A–9.   568 x 414 x 662 --- 9=_____

24A–10.   40.9 x 70.2 x 292 x 20.4 ---------------------------------- 10=_____

24A–11.   Twenty-four point eight added to sixteen and one-third
equals what number?--- 11=_____

24A–12.   Two pi minus the positive square root of 10.5 equals a
number. What is the number? ------------------------------------- 12=_____

24A–13.   A bin containing mixed taffy candy had an advertised price
for the candy, of $5.99 per pound. If the scale that weighed the candy
I bought reads 2.18 pounds, how much did the candy cost excluding
the state sales tax?--- 13=$_____

24A–14.   (503)[651 x 212/297] ------------------------------------- 14=_____

24A–15.   (53/269)[390 – 411] ------------------------------------- 15=_____

24A–16. $\left[\dfrac{194}{211}\right]$[(123/182) – 0.377] ------------------------------ 16=_____

24A–17.   (465 + 523)[410 – 200 – 598] ---------------------------- 17=_____

24A–18. $\dfrac{(503/474) + (354/88)}{(0.0119 - 0.00498)}$ ------------------------------------- 18=_____

24A–19. $\left[\dfrac{52/132}{331/138}\right]$ {0.0024 + 0.003 – 0.00514} ----------------- 19=_____

24A–20. $\dfrac{327}{(83 - 362)} - \dfrac{(150 - 206)}{250}$ ---------------------------------- 20=_____

24A–21. $\dfrac{0.00508 + 0.00443 + 0.00495}{(0.00115)(3.75 \times 10^{-4})(3.73 \times 10^{-5})}$ ---------------------- 21=_____

24A–22. $\left[\dfrac{1520 + 1610}{1470 - 2030}\right]\left[\dfrac{4010}{4100}\right]$ ------------------------------------- 22=_____

24A–23. $\dfrac{(2530 \times 3130)/1260}{(3450 \times 5.58 \times 10^{-5}) + 0.0819}$ --------------------------- 23=_____

24A–24.   If Texas was granted statehood in 1845, for how many
years has Texas been a state by 2023? -------------------------------- 24=_____ yrs (integer)

24A–25.   The distance from Harlingen to Austin is 326.1 miles, via
US 77 North and Interstate 37 North. How long does it take to drive
that distance if I drive an average of 61 miles per hour?--------------- 25=_____ hrs

24A–26.   If ticket prices at a Texas Rangers baseball game are starting
at $17 and premium tickets cost $906, how much does it cost to buy five
of the cheaper tickets plus three premium tickets including a state sales
tax of 8½%? -- 26=$_____

24A–27. $(14.5)[(0.0341/0.0178)(0.128 + 0.184)]$ ---------------- 27=_____

24A–28. $\dfrac{(7.35 + 7.31)(101 + 36)}{(2.94 \times 10^{10})}$ ----------------------------------- 28=_____

24A–29. $(0.556)[(477/467)(359/247)]$ --------------------------- 29=_____

24A–30. $(1.48)\left[(7.87 \times 10^{10}) - (3.38 \times 10^{10})\right]$ -------------------- 30=_____

24A–31. $(0.00775)\left[\dfrac{0.00212}{(5.69 \times 10^{9})}\right]$ ------------------------------- 31=_____

24A–32. $\dfrac{(0.438 + 0.318)}{(6.94 \times 10^{12})}$ --- 32=_____

24A–33. $\dfrac{1}{642} - \dfrac{1}{(691 + 174)}$ ------------------------------------- 33=_____
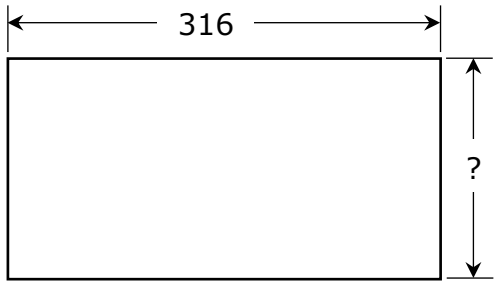
24A–34. $1/(0.782 - 0.393) - 1/(0.367)$ --------------------------- 34=_____

24A–35.   In a black bag there are 18 blue, 21 green, 11 yellow and
19 red marbles. What is the probability of randomly picking a red one? 35=_____

24A–36.   It took 5 minutes and 23 seconds to drain one pint of blood
from my arm during my blood donation. At what rate was the blood
draining out of my arm?-- 36=_____ oz/min

24A-37.	24A-38.
RECTANGLE	CIRCLE

24A-37.
RECTANGLE

316

?
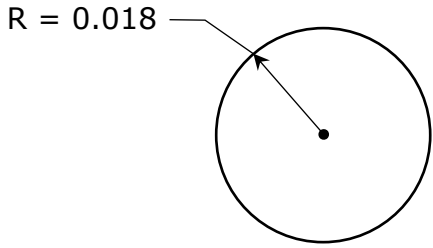
Rectangle Area = 66500

24A-37=_____

24A-38.
CIRCLE

R = 0.018

Circumference = ?

24A-38=_____

24A–39. $\sqrt{\dfrac{1.2 + 1.15}{227 - 137}}$ -- 39=_____

24A–40. $\dfrac{(11300 + 11200)^3}{(0.137 - 0.0487)^2}$ ------------------------------------- 40=_____

24A–41. $(2.91 + 1.01)^2(0.614 + 0.601)^2$ -------------------------- 41=_____

24A–42. $\sqrt{388} + \sqrt{384 + 257} - (\pi)\sqrt{55.8}$ -------------------------- 42=_____

24A–43. $\sqrt{(65/410) + 0.146 - 0.0888}$ ---------------------------- 43=_____
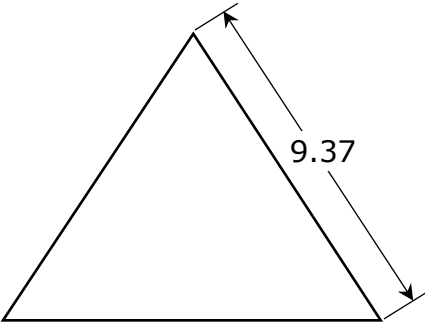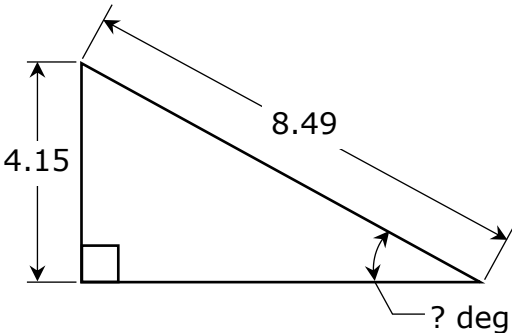
24A–44. $(1/\pi)\sqrt[4]{\dfrac{0.00325 + 0.00295}{0.229 - 0.0641}}$ ------------------------------ 44=_____

24A–45. $\dfrac{1}{\sqrt{1480 + 3060 + 1490}} + \left(\dfrac{1}{\sqrt{6.15}}\right)^4$ ---------------------- 45=_____

24A–46. $(129)\sqrt{77900 + 53500 - 49000}$ -------------------------- 46=_____

24A–47.   If an oatmeal raisin cookie recipe calls for 1½ teaspoons of ground cinnamon and makes 28 cookies, how many teaspoons (tsp) of ground cinnamon are needed to make 100 cookies? ------------------- 47=_____ tsp

24A–48.   Noah walked 100 ft due north, stopped and then walked due west to a spot where he picked up a dollar bill on the ground. He then walked straight back 130 ft to where he started from. How far did Noah walk due west? -- 48=_____ ft

24A-49.	24A-50.
EQUILATERAL TRIANGLE	RIGHT TRIANGLE
9.37 Area = ?	4.15 8.49 ? deg
24A-49=_____	24A-50=_____

24A–51. $\left[\dfrac{9.91 + 13.4 + \sqrt{131 + 396}}{22.5/23.3}\right]^3$ ---------------------------- 51=_____

24A–52. $\dfrac{(7490 + 8700 - 5710)^4}{\sqrt{24000 + 14000 + 15000}}$ ---------------------------------- 52=_____

24A–53. $\dfrac{\sqrt{1.83 + \pi + 2.89}}{(33 - 29.2 + 21.8)^3}$ --- 53=_____

24A–54. $\sqrt{\dfrac{(8.01\text{x}10^5)(1.72\text{x}10^5)}{(9200)(3.09\text{x}10^5)}} - 1.85 + 2.34$ ----------------- 54=_____

24A–55. $(540)^2 \sqrt{(2.89)/(50.7)} - (22400 + 29800)$ --------------- 55=_____
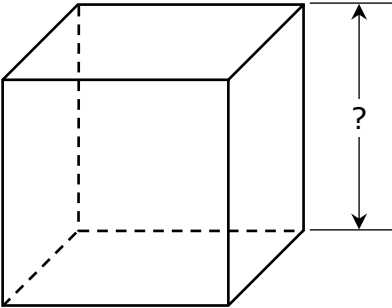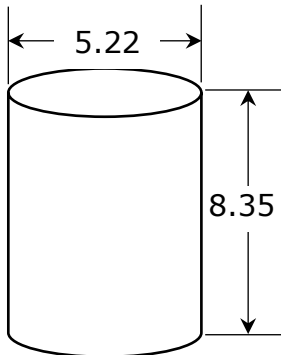
24A–56. $\sqrt{\dfrac{1/(275 - 149)}{(52.1)(3.71 + 6.09)^5}}$ ----------------------------- 56=_____

24A–57. $\sqrt{\dfrac{(124)(108)}{(1450) + (5420)}} - 1.5$ ----------------------------- 57=_____

24A–58. $(\text{deg}) \tan(240°) + (608/1710)$ ---------------------------- 58=_____

24A–59.   Body mass index (BMI) is a person's "weight", in kilograms, divided by the square of height in meters. If Mike weighs 104.5 kilograms and is 1.918 meters tall, what is Mike's BMI?----------------- 59=_____ Kg/m^2

24A–60.   The turning force (centripetal force), acting on a object to make an object turn can be defined as the product of the mass of an object by the ratio of its speed squared to the radius of the circle turned. If the mass of an object is in kilograms, its speed is in meters/second and the radius of the circle turned is in meters, then the units of centripetal force are in Newtons (N). What is the centripetal force acting on Mackenzie, whose mass is 38.2 kilograms, and is moving in a circle of radius 25 meters with a speed of 15 meters/second?-------------------------------------- 60=_____ N

24A-61.

SOLID CUBE

?

Surface Area = 0.00832

24A-61=_____

24A-62.

RIGHT CYLINDER

5.22

8.35

Volume = ?

24A-62=_____

24A–63. $\dfrac{14! + 16!}{19!}$ -- 63=_____

24A–64. (deg) (171 − 240)tan(92.3°) ------------------------------- 64=_____

24A–65. (deg) (3760 + 2960)sin(4.1°) ------------------------------- 65=_____

24A–66. (rad) $\sin\left[\dfrac{(69.9)(\pi)}{(2.03)(120)}\right]$ ------------------------------- 66=_____

24A–67. (rad) $\dfrac{\tan(32.8)}{243/347}$ -- 67=_____

24A–68. (rad) cos[(2.21 − 1.21)(17.8)] ---------------------------- 68=_____

24A–69. (deg) $\dfrac{\sin(4.41°) - \tan(4.41°)}{\sin(4.41°)}$ ----------------------------- 69=_____

24A–70. $(113 + 211 + 89.7)^{3/5}$ ------------------------------------ 70=_____

24A–71.   How much water is in a pipe that is one inch in inside
diameter and ¼ mile long? (Recall 231 in^3 = 1 gallon.) ----------------- 71=_____ gal

24A–72.   Dan guessed that a board was 3 ft long. The board's length
is actually 40 inches long. What is the percent error in Dans guess? --- 72=_____ %

24A-73.
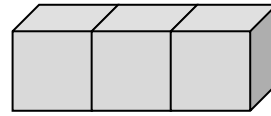### SQUARE AND CIRCLE

Square Area = 100
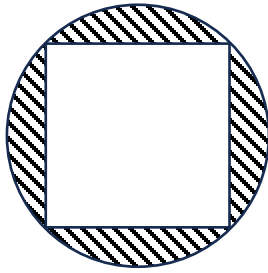
Shaded Area = ?

24A-73=_____

24A-74.
IDENTICAL CUBES

Exposed Surface Area = 100

Total Volume = ?

24A-74=_____

24A–75. $\mathrm{Ln}\left[\dfrac{104 + 44.2 + 197}{463 + 415 - 301}\right]$ ------------------------------------- 75=_____

24A–76. $\dfrac{(27.2)^{0.652}(0.517)^{0.731}}{(8.26 - 6.52)^{-11}}$ --------------------------------- 76=_____

24A–77. $(41100)10^{(0.371)(6.7)}$ ----------------------------------- 77=_____

24A–78. $\dfrac{\mathrm{Log}[584 + (6.46)(112)]}{1.83 + \mathrm{Log}[3400 + 6340]}$ --------------------------------- 78=_____

24A–79. $1 + 2 + 3 + \ldots + 843$ -------------------------------------- 79=_____

24A–80. $\dfrac{1}{(0.75)} + \dfrac{1}{3(0.75)^3} + \dfrac{1}{5(0.75)^5} + \dfrac{1}{7(0.75)^7}$ ----------- 80=_____

2023 – 2024 UIL MS Calculator Test A Answer Key

24A-1   = -12400
        = -1.24×10^4

24A-2   = 59.0
        = 5.90×10^1

24A-3   = 1010
        = 1.01×10^3

24A-4   = -55.0
        = -5.50×10^1

24A-5   = -16000
        = -1.60×10^4

24A-6   = 37.0
        = 3.70×10^1

24A-7   = -2.95
        = -2.95×10^0

24A-8   = 6.46
        = 6.46×10^0

24A-9   = 1.56×10^8

24A-10   = 1.71×10^7

24A-11   = 41.1
        = 4.11×10^1

24A-12   = 3.04
        = 3.04×10^0

24A-13   = 13.06
        Dollar Answer

24A-14   = 234000
        = 2.34×10^5

24A-15   = -4.14
        = -4.14×10^0

24A-16   = 0.275
        = 2.75×10^{-1}

24A-17   = -383000
        = -3.83×10^5

24A-18   = 735
        = 7.35×10^2

24A-19   = 4.27×10^{-5}

24A-20   = -0.948
        = -9.48×10^{-1}

24A-21   = 8.99×10^8

24A-22   = -5.47
        = -5.47×10^0

24A-23   = 22900
        = 2.29×10^4

24A-24   = 178
        Integer Answer

24A-25   = 5.35
        = 5.35×10^0

24A-26   = 3041.26
        Dollar Answer

24A-27   = 8.67
        = 8.67×10^0

24A-28   = 6.83×10^{-8}

24A-29   = 0.825
        = 8.25×10^{-1}

24A-30   = 6.65×10^{10}

24A-31   = 2.89×10^{-15}

24A-32   = 1.09×10^{-13}

24A-33   = 0.000402
        = 4.02×10^{-4}

24A-34   = -0.154
        = -1.54×10^{-1}

24A-35   = 0.275
        = 2.75×10^{-1}

24A-36   = 2.97
        = 2.97×10^0

24A-37   = 210
        = 2.10×10^2

24A-38   = 1.13
        = 1.13×10^0

2023 – 2024 UIL MS Calculator Test A Answer Key

#	Answer	Scientific Notation
24A-39	= 0.162	= 1.62×10^{-1}
24A-40		= 1.46×10^{15}
24A-41	= 22.7	= 2.27×10^{1}
24A-42	= 21.5	= 2.15×10^{1}
24A-43	= 0.464	= 4.64×10^{-1}
24A-44	= 0.140	= 1.40×10^{-1}
24A-45	= 0.0393	= 3.93×10^{-2}
24A-46	= 37000	= 3.70×10^{4}
24A-47	= 5.36	= 5.36×10^{0}
24A-48	= 83.1	= 8.31×10^{1}
24A-49	= 38.0	= 3.80×10^{1}
24A-50	= 29.3	= 2.93×10^{1}
24A-51	= 110000	= 1.10×10^{5}
24A-52		= 5.24×10^{13}
24A-53	= 0.000167	= 1.67×10^{-4}
24A-54	= 7.45	= 7.45×10^{0}
24A-55	= 17400	= 1.74×10^{4}
24A-56		= 4.11×10^{-5}
24A-57	= -0.104	= -1.04×10^{-1}
24A-58	= 2.09	= 2.09×10^{0}
24A-59	= 28.4	= 2.84×10^{1}
24A-60	= 344	= 3.44×10^{2}
24A-61	= 0.0372	= 3.72×10^{-2}
24A-62	= 179	= 1.79×10^{2}
24A-63	= 0.000173	= 1.73×10^{-4}
24A-64	= 1720	= 1.72×10^{3}
24A-65	= 480	= 4.80×10^{2}
24A-66	= 0.784	= 7.84×10^{-1}
24A-67	= 7.56	= 7.56×10^{0}
24A-68	= 0.498	= 4.98×10^{-1}
24A-69	= -0.00297	= -2.97×10^{-3}
24A-70	= 37.2	= 3.72×10^{1}
24A-71	= 53.9	= 5.39×10^{1}
24A-72	= -10.0	= -1.00×10^{1}
24A-73	= 57.1	= 5.71×10^{1}
24A-74	= 57.3	= 5.73×10^{1}
24A-75	= -0.514	= -5.14×10^{-1}
24A-76	= 2350	= 2.35×10^{3}
24A-77		= 1.26×10^{7}
24A-78	= 0.536	= 5.36×10^{-1}
24A-79	= 356000	= 3.56×10^{5}
24A-80	= 4.04	= 4.04×10^{0}

A+ ACADEMICS

University Interscholastic League
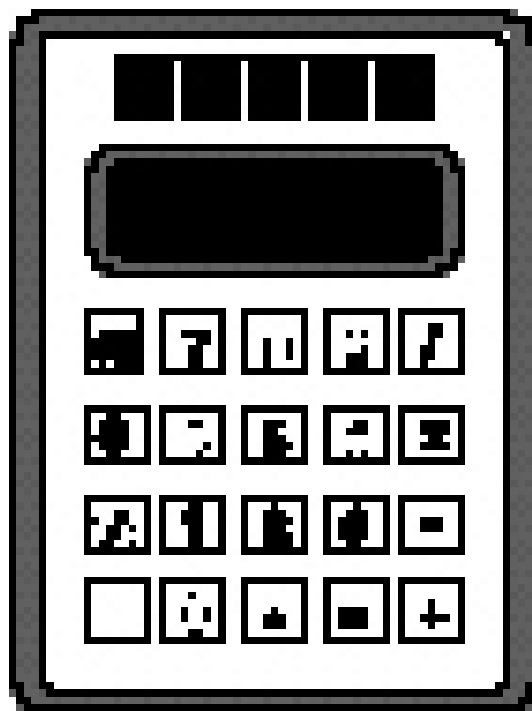
Calculator Applications

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

2023 – 2024 UIL MS Calculator Test B

24B–1.   3880 – 3520 -- 1=_____

24B–2.   32 – 21 + 51 --- 2=_____

24B–3.   3.9 + 18.2 + π --- 3=_____

24B–4.   42 – 81 – 76 – 26 -- 4=_____

24B–5.   –101 – 304 – 345 + 220 ------------------------------------ 5=_____

24B–6.   –213 – 375 – 518 + 206 + 331 -------------------------- 6=_____

24B–7.   (–0.594 + 1.12 – 1.24) – (1.14 + 0.587) ----------------- 7=_____

24B–8.   (–2.93 – 0.749) + (1.12 – 0.719 – 0.997) ---------------- 8=_____

24B–9.   157 x 128 x 21 -- 9=_____

24B–10.   2950 x 2660 x 217 x 5820 -------------------------------- 10=_____

24B–11.   What is the product of nine and two-thirds and the negative
square root of sixty-nine? --- 11=_____

24B–12.   What is the sum of the number of days in the months of
September, March, and October? ------------------------------------ 12=_____ days (Integer)

24B–13.   A take-out menu for barbeque listed a brisket sandwich for
$11.65, a French-fry basket for $5.65, a bowl of pinto beans for $2.95,
a bowl of corn for $2.25, a Texas Pecan Pie dessert for $4.95 and a soft
drink for $2. If Andy ordered one of each item listed, how much did he
pay for all these items, excluding state sales tax? --------------------- 13=$_____

24B–14. (155)[140 x 121/181] ------------------------------------ 14=_____

24B–15. (373/285)[602 – 616] ------------------------------------ 15=_____

24B–16. {(55)(29 – 40)(112)} – 31600 --------------------------- 16=_____

24B–17. $\left[\dfrac{117}{145}\right]$ [(128/34) + 2.6] ------------------------------------ 17=_____

24B–18. $\left[\dfrac{(2100/2410) - (2130/3750)}{30.4/12.1}\right]$ ---------------------------- 18=_____

24B–19. $\dfrac{[0.00377/(0.00414)]/0.0209}{(0.00171 \times 0.00155)(0.00837)}$ --------------------------- 19=_____

24B–20. (0.00647)[93/133 x 99/128] – 5.61x10^{-4} --------------- 20=_____

24B–21. $\dfrac{5470 + 1790 + 4610}{(11.5)(0.00934)(48.8)}$ ------------------------------------ 21=_____

24B–22. $\dfrac{[-(1300 + 1000)(1100 - 274)]}{(6.54x10^{-4}/(0.0594))}$ --------------------------- 22=_____

24B–23. $\left[\dfrac{470 + 477}{192 - 293}\right]\left[\dfrac{262}{1290}\right]$ ------------------------------------ 23=_____

24B–24.   If the University Interscholastic League was founded in 1910,
how old is the UIL in 2023? -- 24=_____ yrs (Integer)

24B–25.   Albert is riding his bicycle at an average speed of 6.25 miles
per hour. In the distance he sees his daughter, Mackenzie, and reaches
her in 2½ minutes. How far away from Mackenzie was Albert when he
first spotted her?--- 25=_____ feet

24B–26.   A social media app called Threads had 30.6 million users
within one day of its initial release by the Facebook's parent company,
Meta. What was the average rate of new users joining Threads? ------- 26=_____ users/min

24B–27. $[3870 - (1640 + 1510)] + [(-0.0549)(2640 - 6070)]$ --- 27=_____

24B–28. $(0.852)\left[(37/58.6)(3.05\times10^{-4} + 0.00254)\right]$ ------------- 28=_____

24B–29. $(90.5)[(0.0088/0.0157)(178/310)]$ ---------------------- 29=_____

24B–30. $[1.9]\left[\dfrac{1/0.823}{1/0.977}\right]$ --- 30=_____

24B–31. $(28.7)\left[(3.83\times10^{9}) - (1.75\times10^{9})\right]$ ---------------------- 31=_____
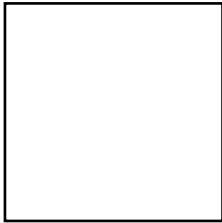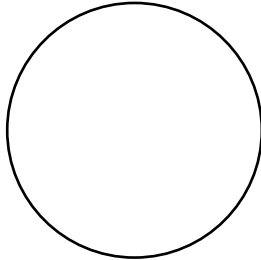
24B–32. $\dfrac{1}{792} + \dfrac{1}{(\pi)(384 - 129)}$ ------------------------------------- 32=_____

24B–33. $1/(0.0518 - 0.033) - 1/(0.0084)$ ------------------------ 33=_____

24B–34. $\dfrac{1}{170} - \dfrac{1}{55.2} + \dfrac{1}{126}$ --------------------------------------- 34=_____

24B–35.   Within a gym class there are 23 students that weigh between 75 and 100 pounds, 18 students that weigh between 101 and 125 pounds, 17 students that weigh between 126 and 150 pounds and 6 students that weigh more than 151 pounds. What is the probability of randomly selecting a student that weighs 119 pounds? ------------- 35=_____

24B–36.   If the distance from DFW Airport to Dulles International Airport is 1,172 miles and my airplane fight takes 2 hours 32 minutes to fly that distance, what is my plane's average speed?---------------- 36=_____ mph

24B-37.
SQUARE

Perimeter = 3.61×10^{12}

Square Area = ?

24B-37=_____

24B-38.
CIRCLE

Circumference = 0.00825

Circle Area = ?

24B-38=_____

24B–39. $\left[\dfrac{9600 + (1/(2.47\text{x}10^{-4}))}{(3740/4520) - 0.311}\right]^2$ ---------------------------------- 39=_____

24B–40. $\dfrac{(56400 + 36600)^3}{(0.0275 - 0.0189)^2}$ ----------------------------------- 40=_____

24B–41. $\left[\dfrac{30.9}{16.5}\right](25.6 + 18.5)^4$ -------------------------------- 41=_____

24B–42. $(1/\pi)\sqrt[3]{\dfrac{0.0167 + 0.0586}{0.0144 - 0.00603}}$ ---------------------------- 42=_____

24B–43. $\sqrt{8990 - 7650 + 8730} - \sqrt{4000}$ --------------------------- 43=_____
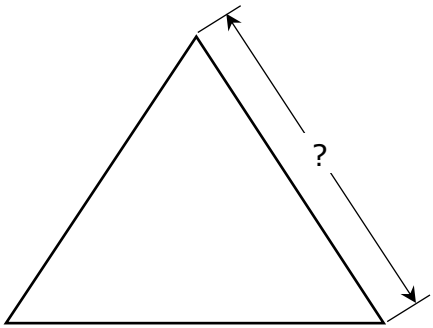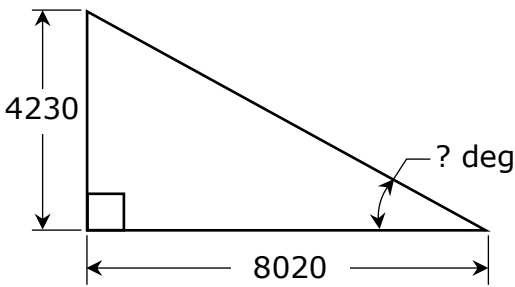
24B–44. $\sqrt{43.6} + \sqrt{24.5 + 64.8} - (\pi)\sqrt{47.5}$ ------------------------ 44=_____

24B–45. $\left[\sqrt{(64.6/156)(810)}\right]^3$ -------------------------------- 45=_____

24B–46. $(2220)\sqrt[3]{9880 + 2920 - 2440}$ ---------------------------- 46=_____

24B–47.   A typical 1.69-ounce bag of candies contains 56 candies. A "pi"
bag of 3.14 ounces should hold at most how many candies (cnd)? ----- 47=_____ cnd (Integer)

24B–48.   A 25-ft long rope is attached to the top of a 18-ft tall pole. If
the rope stretched taut so that it touches the ground, at what acute
angle to the ground does the rope make? ------------------------------- 48=_____ °

24B-49.	24B-50.
EQILATERAL TRIANGLE	RIGHT TRIANGLE
?	4230 ... ? deg ... 8020
Area = 503000	
24B-49=_____	24B-50=_____

24B–51. $\dfrac{\sqrt{5.17 + \pi + 3.18}}{(1290 - 4620 + 2140)^2}$ ----------------------------------- 51=_____

24B–52. $\dfrac{(0.823 + 0.244 - 0.82)^2}{\sqrt{7.79 + 13.9 + 16.3}}$ ----------------------------------- 52=_____

24B–53. $\sqrt{\dfrac{56.7}{(1.15)(0.45)}} + \dfrac{(3570 - 2980)}{(21.8 + 17.9)}$ ------------------------- 53=_____

24B–54. $\sqrt{\dfrac{(7540)(6340)}{(2.97\times10^5)(58200)}} - 0.034 + 0.0429$ ---------------- 54=_____

24B–55. $(18.8)^2 \sqrt{(93.8)/(84.1)} - (164 + 260)$ -------------------- 55=_____
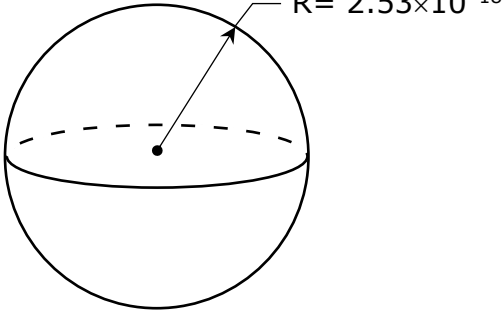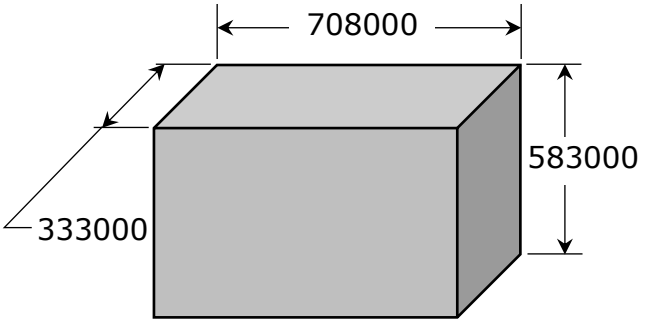
24B–56. $(67.1)(2.29\times10^9)^{1/3} - [(40900)(3.34\times10^5)]^{1/2}$ ---------- 56=_____

24B–57. (deg) $\tan(163°) + (15.6/31.6)$ ---------------------------- 57=_____

24B–58. $\sqrt{\dfrac{(6.43)(74.6)}{(2910) + (1230)}} + 1/(0.583)^{-2}$ ----------------------- 58=_____

24B–59. The coefficient of friction, μ, can be defined as the ratio of the motion-opposing frictional force parallel to the object's surface in contact, to the normal, or perpendicular, force between an object's surface. If μ for rubber against concrete is 0.75 and a solid rubber block with a normal force (weight) of 2.75 pounds is rubbing against a concrete floor, what is the frictional force opposing the blocks motion?   59=_____ Lbs.

24B–60. A car traveling with an average speed of 65 miles per hour (mph) is just behind and starting to pass a car traveling with an average speed of 63 mph in the lane next to it. If the faster car has a length of 24-ft and the slower car has a length of 15.4-ft, how long does it take the faster car to pass the slower car so that its back end is 25-ft ahead of the front end of the slower car? ------------------------------------ 60=_____ sec

24B-61.

SPHERE

R= 2.53×10^{-18}

Volume = ?

24B-61=_____

24B-62.

RECTANGULAR SOLID BOX

708000

583000

333000

Total Surface Area = ?

24B-62=_____

24B–63. $\dfrac{8! - 6!}{5!}$ -- 63=_____

24B–64. (deg) $(20.5 - 36)\tan(14.2°)$ -------------------------------- 64=_____

24B–65. (deg) $\dfrac{\tan(1.12°)}{1270}$ -- 65=_____

24B–66. (deg) $[468]\cos(11.8° - 14.2°)$ ------------------------------ 66=_____

24B–67. (rad) $\dfrac{\sin(495)}{2040/57.8}$ -- 67=_____

24B–68. (deg) $\dfrac{\sin(387°)}{\tan(387°)}[99.1]$ -------------------------------------- 68=_____

24B–69. (deg) $\dfrac{\cos(406°)}{175 + 219}$ -- 69=_____

24B–70. $(74.1 + 74.2 + 81.1)^{4/5}$ ----------------------------------- 70=_____

24B–71.   A rectangular box-shaped aquarium measures 20" by 10" by 12". How many gallons of water will it hold?------------------------ 71=_____ gal

24B–72.   Mike predicted it would take 2¾ cubic yards of concrete to build a small concrete pad. If it actually took 2½ cubic yards, what was Mike's percent error in his prediction? --------------------------------- 72=_____ %
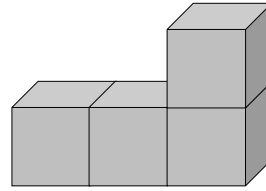
24B-73.

SQUARE AND CIRCLE
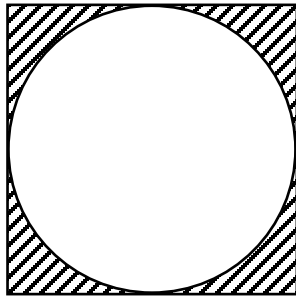
Circle Area = 7.46

Shaded Area = ?

24B-73=_____

24B-74.

IDENTICAL CUBES

Total Volume = 100

Total Exposed Surface Area = ?

24B-74=_____

24B–75. $\dfrac{\text{Log}(2.04 \times 10^{11} + 5.78 \times 10^{11})}{24.9}$ ----------------------------- 75=_____

24B–76. $\dfrac{(0.487)^{0.425}(12.3)^{0.51}}{(8.14 - 4.89)^{-5}}$ ----------------------------- 76=_____

24B–77. $2\text{Log}\sqrt{\dfrac{(23.9)(306)}{85.2 + 85}}$ --- 77=_____

24B–78. $(0.381)^{\pi}(0.0565)^{4}(3.12 - 2.74)^{5}$ -------------------------- 78=_____

24B–79. $4 + 6 + 8 + \ldots + 370$ ------------------------------------- 79=_____

24B–80. $-\dfrac{1}{(8.69)} + \dfrac{1}{3(8.69)^{3}} - \dfrac{1}{5(8.69)^{5}} + \dfrac{1}{7(8.69)^{7}}$ ---------- 80=_____

2023 – 2024 UIL MS Calculator Test B Answer Key

24B-1 = 360
= 3.60×10^2

24B-2 = 62.0
= 6.20×10^1

24B-3 = 25.2
= 2.52×10^1

24B-4 = -141
= -1.41×10^2

24B-5 = -530
= -5.30×10^2

24B-6 = -569
= -5.69×10^2

24B-7 = -2.44
= -2.44×10^0

24B-8 = -4.27
= -4.27×10^0

24B-9 = 422000
= 4.22×10^5

24B-10 = 9.91×10^{12}

24B-11 = -80.3
= -8.03×10^1

24B-12 = 92
Integer Answer

24B-13 = $29.45
Dollar Answer

24B-14 = 14500
= 1.45×10^4

24B-15 = -18.3
= -1.83×10^1

24B-16 = -99400
= -9.94×10^4

24B-17 = 5.14
= 5.14×10^0

24B-18 = 0.121
= 1.21×10^{-1}

24B-19 = 1.96×10^9

24B-20 = 0.00294
= 2.94×10^{-3}

24B-21 = 2260
= 2.26×10^3

24B-22 = -1.73×10^8

24B-23 = -1.90
= -1.90×10^0

24B-24 = 113
Integer Answer

24B-25 = 1380
= 1.38×10^3

24B-26 = 21300
= 2.13×10^4

24B-27 = 908
= 9.08×10^2

24B-28 = 0.00153
= 1.53×10^{-3}

24B-29 = 29.1
= 2.91×10^1

24B-30 = 2.26
= 2.26×10^0

24B-31 = 5.97×10^{10}

24B-32 = 0.00251
= 2.51×10^{-3}

24B-33 = -65.9
= -6.59×10^1

24B-34 = -0.00430
= -4.30×10^{-3}

24B-35 = 0.281
= 2.81×10^{-1}

24B-36 = 463
= 4.63×10^2

24B-37 = 8.15×10^{23}

24B-38 = 5.42×10^{-6}

2023 – 2024 UIL MS Calculator Test B Answer Key

24B-39 = 6.98×10^8

24B-40 = 1.09×10^{19}

24B-41 = 7.08×10^6

24B-42 = 0.662
= 6.62×10^{-1}

24B-43 = 37.1
= 3.71×10^1

24B-44 = -5.60
= -5.60×10^0

24B-45 = 6140
= 6.14×10^3

24B-46 = 48400
= 4.84×10^4

24B-47 = 104
Integer Answer

24B-48 = 46.1
= 4.61×10^1

24B-49 = 1080
= 1.08×10^3

24B-50 = 27.8
= 2.78×10^1

24B-51 = 2.39×10^{-6}

24B-52 = 0.00990
= 9.90×10^{-3}

24B-53 = 25.3
= 2.53×10^1

24B-54 = 0.0615
= 6.15×10^{-2}

24B-55 = -50.7
= -5.07×10^1

24B-56 = -28400
= -2.84×10^4

24B-57 = 0.188
= 1.88×10^{-1}

24B-58 = 0.680
= 6.80×10^{-1}

24B-59 = 2.06
= 2.06×10^0

24B-60 = 22.0
= 2.20×10^1

24B-61 = 6.78×10^{-53}

24B-62 = 1.69×10^{12}

24B-63 = 330
= 3.30×10^2

24B-64 = -3.92
= -3.92×10^0

24B-65 = 1.54×10^{-5}

24B-66 = 468
= 4.68×10^2

24B-67 = -0.0278
= -2.78×10^{-2}

24B-68 = 88.3
= 8.83×10^1

24B-69 = 0.00176
= 1.76×10^{-3}

24B-70 = 77.4
= 7.74×10^1

24B-71 = 10.4
= 1.04×10^1

24B-72 = 10.0
= 1.00×10^1

24B-73 = 2.04
= 2.04×10^0

24B-74 = 154
= 1.54×10^2

24B-75 = 0.478
= 4.78×10^{-1}

24B-76 = 960
= 9.60×10^2

24B-77 = 1.63
= 1.63×10^0

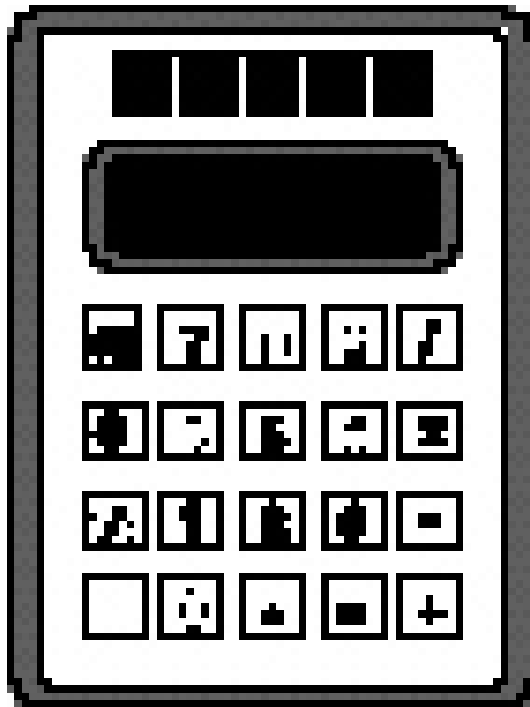24B-78 = 3.90×10^{-9}

24B-79 = 34400
= 3.44×10^4

24B-80 = -0.115
= -1.15×10^{-1}

A+ ACADEMICS

University Interscholastic League

Calculator Applications

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

2023 – 2024 UIL MS Calculator Test C

24C–1.　　2730 – 1670 --- 1=_____

24C–2.　　–70 + 35 – 10 -- 2=_____

24C–3.　　1550 + 5810 – 5300 ------------------------------------- 3=_____

24C–4.　　π – 3 + 5 – 1 --- 4=_____

24C–5.　　319 + 998 – 1550 – 1300 --------------------------------- 5=_____

24C–6.　　68.9 – 178 – 532 – 202 + 173 --------------------------- 6=_____

24C–7.　　–5.29 + 6.13 + 5.31 + 0.946 + 1.11 -------------------- 7=_____

24C–8.　　–2.25 + 4.17 – 2.48 + 4.9 + 3.77 ----------------------- 8=_____

24C–9.　　60 x 285 x 157 --- 9=_____

24C–10.　　341 x 191 x 4470 x 1130 --------------------------------- 10=_____

24C–11.　　What is the product of the negative square root of one thousand and twenty-eight point seven? ------------------------------- 11=_____

24C–12.　　How many hours are in 8½ weeks?----------------------- 12=_____ hrs (Integer)

24C–13.　　A menu for a local Mexican food restaurant where I frequently eat listed chicken fajitas at $18.50 each, guacamole at $1.75, flour tortillas at $1.25, pinto beans at $1.75, rice at $1.25 and tea at $2.25. If I ordered each of the items listed, how much did I pay for all of these items, excluding sales tax?-- 13=$_____

24C–14.   (470)[287 x 495/295] ------------------------------------ 14=_____

24C–15.   (–105)[260 x 926 x 922] ------------------------------ 15=_____

24C–16. $\{-86/42\}\left[\dfrac{97}{69 + 40}\right]$ -- 16=_____

24C–17.   (295 + 63)[51 – 46 – 144] ------------------------------- 17=_____

24C–18. $\left[\dfrac{(0.01 + 0.0258)}{397/490}\right]\left[\dfrac{49.1}{135}\right]$ ------------------------------------ 18=_____

24C–19. $\left[\dfrac{111/130}{94/213}\right]$ {7.33 + 4.93 – 3.62} ------------------------- 19=_____

24C–20.   (0.733)[481/456 x 201/285] – 0.248 -------------------- 20=_____

24C–21. $\dfrac{(2.48)(0.00966)}{0.00422}$ (6.84 – 10.5) --------------------------- 21=_____

24C–22. $\dfrac{(\pi)(153/225)(304/369)}{(535/734)}$ ------------------------------------ 22=_____

24C–23. $\dfrac{(3.37 + 16.8 – \pi)}{\{(1.41 – 1.33)/(464)\}}$ ------------------------------------ 23=_____

24C–24.   If the city of Austin was founded in 1839, how old is the city of Austin in 2023? --- 24=_____ yrs (Integer)

24C–25.   Liz is jogging at an average speed of 4.25 miles per hour. In the distance she sees her oldest son, Wesley, standing underneath a large oak tree. If she gets to Wesley in 2½ minutes, how far away from Wesley was Liz when she first spotted him?---------------------------- 25=_____ feet

24C–26.   A social media app called Threads had 100 million users within five days of its initial release by the Facebook's parent company, Meta. What was the average rate of new users joining Threads? ------- 26=_____ users/min

24C–27. $\dfrac{(317 + 530)(0.335 + 0.292)}{(1.15 \times 10^{12})}$ ---------------------------- 27=_____

24C–28. $\dfrac{(1.84 \times 10^{7}) + (2.22 \times 10^{7})}{(-0.0158)(0.0262) - 2.17 \times 10^{-4}}$ ------------------------ 28=_____

24C–29. $\dfrac{(1.56 - 5.11)(42.2 + 81.6)}{(1.06 \times 10^{12})}$ ----------------------------- 29=_____

24C–30. $\dfrac{1}{0.031} + \dfrac{1}{(\pi)(0.0456 - 0.0357)}$ ------------------------- 30=_____

24C–31. $(0.00201)\left[\dfrac{1.69}{(5.16 \times 10^{11})}\right]$ --------------------------------- 31=_____
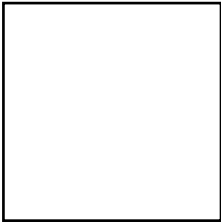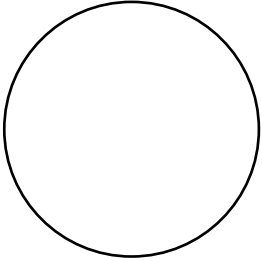
24C–32. $[0.00778]\left[\dfrac{1/68.8}{1/95.4}\right]$ -- 32=_____

24C–33. $1/(0.0101 - 0.0124) - 1/(-9.77 \times 10^{-4})$ ------------------- 33=_____

24C–34. $\left[\dfrac{1/2960}{1/1780}\right][4.16 \times 10^{6}]$ --------------------------------------- 34=_____

24C–35.   Within a gym class there are 23 students that weigh between
75 and 100 pounds, 18 students that weigh between 101 and 125
pounds, 17 students that weigh between 126 and 150 pounds and 6
students that weigh more than 151 pounds. What is the probability
of randomly selecting a student that weighs 130 pounds? ------------- 35=_____

24C–36.   If the distance from McAllen to Rio Grande City is 42.3 miles
and it takes Juan 48 minutes to travel that distance, what is Juan's
average speed? --- 36=_____mph

24C-37.	24C-38.
SQUARE	CIRCLE
Perimeter = 0.000419	Circumference = 72900
Square Area = ?	Circle Area = ?
24C-37=_____	24C-38=_____

24C–39. $\dfrac{(42700 + 71400)^2}{(0.877 - 0.763)^3}$ --- 39=_____

24C–40. $\left[\dfrac{10.4}{1180}\right](4.4 + 2.16)^2$ ------------------------------------ 40=_____

24C–41. $(0.182 + 0.599)^2(4.97 + 9.63)^2$ -------------------------- 41=_____

24C–42. $\sqrt{(3760/950)} + 3.96 - 3.04$ ------------------------------ 42=_____

24C–43. $(1/(0.00142))(30600 - 29600)^3$ -------------------------- 43=_____
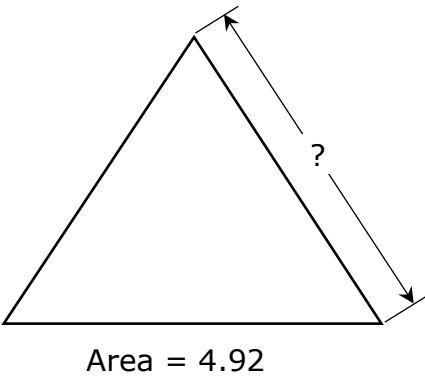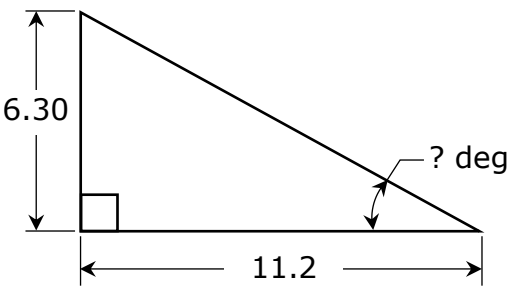
24C–44. $\sqrt{9.06} + \sqrt{12.6 + 18.4} - (\pi)\sqrt{13.9}$ ---------------------- 44=_____

24C–45. $\sqrt[4]{0.917 - 203/430} + 1/\sqrt{5.97 + 9.95}$ -------------------- 45=_____

24C–46. $\dfrac{(5420 + 10600)^{1/2}}{(93.2 - 28.7)^{1/5}}$ ------------------------------------- 46=_____

24C–47. A typical gallon jar of *Whole Queen Olives* usually holds 175 olives. Based on this fact, an 8-oz jar should hold at most how many whole *Whole Queen Olives* (WQO)?------------------------------- 47=_____ WQO (Integer)

24C–48. A 20-ft long rope is attached to the top of a 18-ft tall pole. If the rope stretched taut so that it touches the ground, at what acute angle to the ground does the rope make?------------------------------- 48=_____°

24C-49.	24C-50.
EQUILATERAL TRIANGLE	RIGHT TRIANGLE
Area = 4.92	
24C-49=_____	24C-50=_____

24C–51. $\dfrac{(0.0148 + 0.047 - 0.0604)^3}{\sqrt{3750 + 17800 + 14400}}$ ---------------------------------- 51=_____

24C–52. $\dfrac{\sqrt{4.86 + \pi + 16.6}}{(0.974 - 5.87 + 5.38)^4}$ ------------------------------------ 52=_____

24C–53. $\left[\dfrac{\sqrt{\sqrt{0.0516 - 0.0203}}}{-(1550 - 1280)}\right]^3 [0.737 + 1.77]$ ------------------- 53=_____

24C–54. $1820 + \sqrt{(5930)(6830)} - (1530 + 6240)$ ----------------- 54=_____

24C–55. $0.292 + \sqrt{(754)/(303)} - (0.304 + 0.299)^2$ --------------- 55=_____
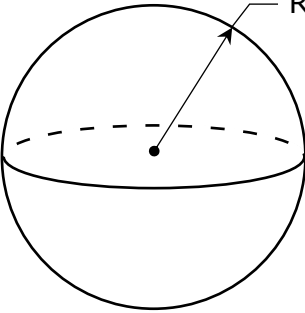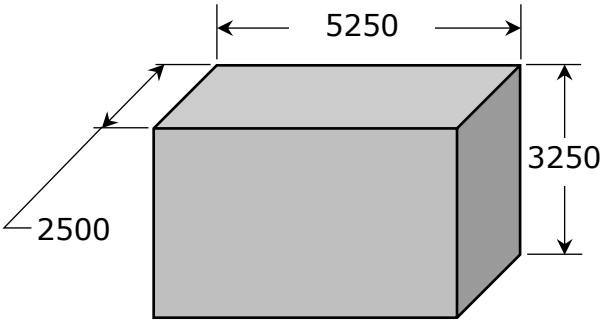
24C–56. $(9.12)^2 \sqrt{(373)/(47.9)} - (87.6 + 105)$ ------------------- 56=_____

24C–57. $(\text{rad})\sin(78.5) + (28.1/20.3)$ ------------------------------ 57=_____

24C–58. $\sqrt{\dfrac{1/(13.8 - 13.5)}{(2510)(19.9 + 34.9)^6}}$ ------------------------------------ 58=_____

24C–59.   The coefficient of friction, μ, can be defined as the ratio of the motion-opposing frictional force parallel to the object's surface in contact, to the normal, or perpendicular, force between an object's surface. If μ for rubber against concrete is 0.75 and a solid rubber block with a normal force (weight) of 3.75 pounds is rubbing against a concrete floor, what is the frictional force opposing the blocks motion? 59=_____ Lbs.

24C–60.   A car traveling with an average speed of 67 miles per hour (mph) is just behind and starting to pass a car traveling with an average speed of 63 mph in the lane next to it. If the faster car has a length of 24-ft and the slower car has a length of 15.4-ft, how long does it take the faster car to pass the slower car so that its back end is 25-ft ahead of the front end of the slower car?------------------------------------- 60=_____ sec

24C-61. SPHERE	24C-62. RECTANGULAR SOLID BOX
R= 8.26×10^8 Volume = ? 24C-61=_____	5250 3250 2500 Total Surface Area = ? 24C-62=_____

24C–63. $\dfrac{21!}{19!} + 5!$ -- 63=_____

24C–64. (deg) $(2.29 - 9.1)\sin(1.36°)$ ------------------------------- 64=_____

24C–65. (deg) $(4730 + 8850)\sin(26.3°)$ ---------------------------- 65=_____

24C–66. (deg) $(6.85 - 1.44)\tan(11.8°) + 0.424$ -------------------- 66=_____

24C–67. (deg) $[44.7]\cos(177° - 172°)$ ----------------------------- 67=_____

24C–68. (deg) $\dfrac{\sin(3.31°) - \tan(3.31°)}{\sin(3.31°)}$ ----------------------------- 68=_____

24C–69. (rad) $\sin[(14 - 29.9)(5.48)]$ ------------------------------- 69=_____

24C–70. $\left[(109)\left(\dfrac{25.2}{(11.3)(\pi)}\right)\right]^{7/2}$ ------------------------------------- 70=_____

24C–71. A rectangular box-shaped aquarium measures 30" by 15"
by 18". How many gallons of water will it hold?------------------------ 71=_____ gal

24C–72. Mike predicted it would take 3¼ cubic yards of concrete to
build a small concrete pad. If it actually took 2¾ cubic yards, what was
Mike's percent error in his prediction? --------------------------------- 72=_____ %

24C-73.

SQUARE AND CIRCLE
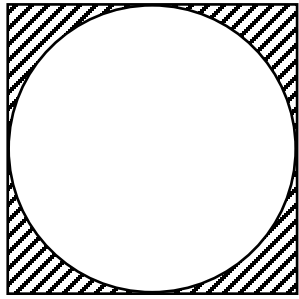
Circle Area = 100

Shaded Area = ?

24C-73=_____

24C-74.

IDENTICAL CUBES
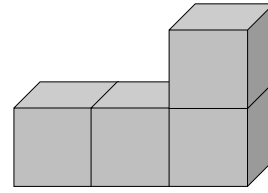
Total Volume = 1000

Total Exposed Surface Area = ?

24C-74=_____

24C–75. $\dfrac{(1.14)^{0.24}(28.4)^{0.233}}{(7.61 - 7.07)^{-3}}$ ------------------------------------- 75=_____

24C–76. $\dfrac{\text{Log}(1.18 \times 10^{7} + 3.94 \times 10^{6})}{10.2}$ ------------------------------- 76=_____

24C–77. $\text{Log}(10.3 + 15.6 + 5.47)$ ----------------------------------- 77=_____

24C–78. $\dfrac{(e^{0.837})(e^{0.27})(e^{0.644})}{\text{Ln}(94 + 240)}$ ----------------------------------- 78=_____

24C–79. $2 + 4 + 6 + \ldots + 798$ --------------------------------------- 79=_____

24C–80. $1 + (0.97) + \dfrac{(0.97)^{2}}{2} + \dfrac{(0.97)^{3}}{6} + \dfrac{(0.97)^{4}}{24}$ --------------- 80=_____

2023 – 2024 UIL MS Calculator Test C

24C-1 = 1060
= 1.06×10^3

24C-2 = -45.0
= -4.50×10^1

24C-3 = 2060
= 2.06×10^3

24C-4 = 4.14
= 4.14×10^0

24C-5 = -1530
= -1.53×10^3

24C-6 = -670
= -6.70×10^2

24C-7 = 8.21
= 8.21×10^0

24C-8 = 8.11
= 8.11×10^0

24C-9 = 2.68×10^6

24C-10 = 3.29×10^{11}

24C-11 = -90.8
= -9.08×10^1

24C-12 = 1428
Integer Answer

24C-13 = 26.75
Dollar Answer

24C-14 = 226000
= 2.26×10^5

24C-15 = -2.33×10^{10}

24C-16 = -1.82
= -1.82×10^0

24C-17 = -49800
= -4.98×10^4

24C-18 = 0.0161
= 1.61×10^{-2}

24C-19 = 16.7
= 1.67×10^1

24C-20 = 0.297
= 2.97×10^{-1}

24C-21 = -20.8
= -2.08×10^1

24C-22 = 2.41
= 2.41×10^0

24C-23 = 98800
= 9.88×10^4

24C-24 = 184
Integer Answer

24C-25 =935
= 9.35×10^2

24C-26 = 13900
= 1.39×10^4

24C-27 = 4.62×10^{-10}

24C-28 = -6.43×10^{10}

24C-29 = -4.15×10^{-10}

24C-30 = 64.4
= 6.44×10^1

24C-31 = 6.58×10^{-15}

24C-32 = 0.0108
= 1.08×10^{-2}

24C-33 = 589
= 5.89×10^2

24C-34 = 2.50×10^6

24C-35 = 0.266
= 2.66×10^{-1}

24C-36 = 52.9
= 5.29×10^1

24C-37 = 1.10×10^{-8}

24C-38 = 4.23×10^8

2023 – 2024 UIL MS Calculator Test C

24C-39   = 8.79x10^{12}

24C-40   = 0.379
           = 3.79x10^{-1}

24C-41   = 130
           = 1.30x10^{2}

24C-42   = 2.21
           = 2.21x10^{0}

24C-43   = 7.04x10^{11}

24C-44   = -3.13
           = -3.13x10^{0}

24C-45   = 1.07
           = 1.07x10^{0}

24C-46   = 55.0
           = 5.50x10^{1}

24C-47   = 10
           Integer Answer

24C-48   = 64.2
           = 6.42x10^{1}

24C-49   = 3.37
           = 3.37x10^{0}

24C-50   = 29.4
           = 2.94x10^{1}

24C-51   = 1.45x10^{-11}

24C-52   = 90.4
           = 9.04x10^{1}

24C-53   = -9.48x10^{-9}

24C-54   = 414
           = 4.14x10^{2}

24C-55   = 1.51
           = 1.51x10^{0}

24C-56   = 39.5
           = 3.95x10^{1}

24C-57   = 1.42
           = 1.42x10^{0}

24C-58   = 2.21x10^{-7}

24C-59   = 2.81
           = 2.81x10^{0}

24C-60   = 11.0
           = 1.10x10^{1}

24C-61   = 2.36x10^{27}

24C-62   = 7.66x10^{7}

24C-63   = 540
           = 5.40x10^{2}

24C-64   = -0.162
           = -1.62x10^{-1}

24C-65   = 6020
           = 6.02x10^{3}

24C-66   = 1.55
           = 1.55x10^{0}

24C-67   = 44.5
           = 4.45x10^{1}

24C-68   = -0.00167
           = -1.67x10^{-3}

24C-69   = 0.740
           = 7.40x10^{-1}

24C-70   = 4.07x10^{6}

24C-71   = 35.1
           = 3.51x10^{1}

24C-72   = 18.2
           = 1.82x10^{1}

24C-73   = 27.3
           = 2.73x10^{1}

24C-74   = 714
           = 7.14x10^{2}

24C-75   = 0.354
           = 3.54x10^{-1}

24C-76   = 0.706
           = 7.06x10^{-1}

24C-77   = 1.50
           = 1.50x10^{0}

24C-78   = 0.991

24C-79   = 160000

24C-80   = 2.63
           = 2.63x10^{0}

           = 9.91x10^{-1}

FOR GRADER USE ONLY
Test/Tiebreaker (#correct)

_____/_____ Initials_____

_____/_____ Initials_____

Papers contending to place:

_____/_____ Initials_____

UIL
University Interscholastic League
A+ Chess Puzzle Contest • Answer Sheet

Write your contestant number in the upper right corner, and circle your grade below.

Circle Grade Level: 2   3   4   5   6   7   8

Test *(circle only one answer for each question)*

1.   a   b   c   d   **11.**   a   b   c   d

2.   a   b   c   d   **12.**   a   b   c   d

3.   a   b   c   d   **13.**   a   b   c   d

4.   a   b   c   d   **14.**   a   b   c   d

5.   a   b   c   d   **15.**   a   b   c   d

6.   a   b   c   d   **16.**   a   b   c   d

7.   a   b   c   d   **17.**   a   b   c   d

8.   a   b   c   d   **18.**   a   b   c   d   *Questions #17- 20 only for Grades 4-8*

9.   a   b   c   d   **19.**   a   b   c   d

10.   a   b   c   d   **20.**   a   b   c   d

Tiebreaker *(circle only one answer for each question)*

1.   a   b   c   d   **5.**   a   b   c   d

2.   a   b   c   d   **6.**   a   b   c   d

3.   a   b   c   d   **7.**   a   b   c   d

4.   a   b   c   d   **8.**   a   b   c   d

University Interscholastic League

Chess Puzzle Solving
grades 2 & 3

DO NOT OPEN TEST
UNTIL TOLD TO DO SO

How to read and answer questions on this test

• To answer the questions on this test, you'll need to know how to read chess moves. It's simple to do.

• Every square on the board has an "address" made up of a letter and a number.

a8	b8	c8	d8	e8	f8	g8	h8
a7	b7	c7	d7	e7	f7	g7	h7
a6	b6	c6	d6	e6	f6	g6	h6
a5	b5	c5	d5	e5	f5	g5	h5
a4	b4	c4	d4	e4	f4	g4	h4
a3	b3	c3	d3	e3	f3	g3	h3
a2	b2	c2	d2	e2	f2	g2	h2
a1	b1	c1	d1	e1	f1	g1	h1

Piece Names — **Each chessman can also be represented by a symbol, except for the pawn.** (Figurine Notation)

Piece Names	
King	♔
Queen	♕
Rook	♖
Bishop	♗
Knight	♘
Pawn	**a-h** (We write the file it's on.)

• To make them easy to read, the questions on this test use the figurine piece symbols on the right, above.

• When answering the puzzle questions, remember that white pawns move "up" the diagrams. Black pawns move "down" the diagrams.

At right are two sample moves.

If you look closely at the diagrams in the questions below, you'll see that the frame around the diagram labels the ranks (1-8) and files (a-h) to help you.

White has just played **e4**.　　Black has just played ...♘**f6**

#1. White to move

What term best describes this situation?

a) White is in checkmate.
b) White is in stalemate.
c) White is in check.
d) None of the above.

#2. White to move

What term best describes this situation?

a) White is in checkmate.
b) White is in stalemate.
c) White is in check.
d) None of the above.

#3. White to move

What term best describes this situation?

a) White is in check.
b) White is in stalemate.
c) White is in checkmate.
d) None of the above.
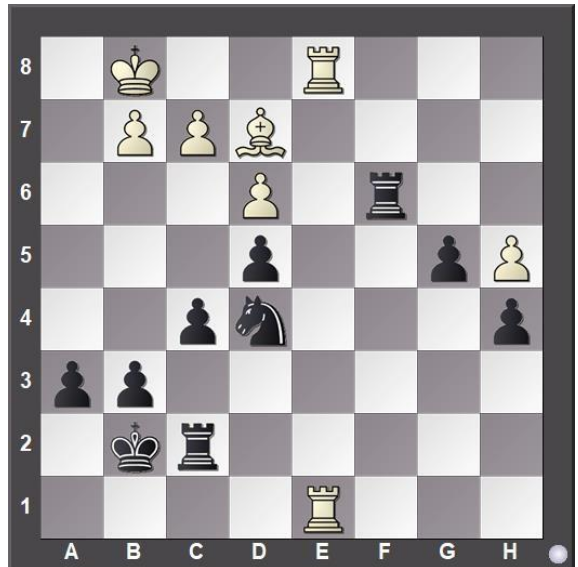
#4.

Which side has material advantage?

a) White
b) Black
c) It's even.
d) It's not possible to tell without knowing who is to move.
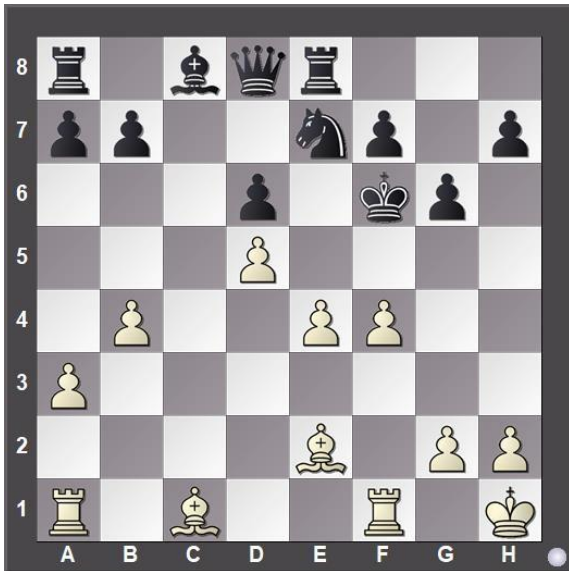
#5. White to move

What is White's best move?

a) e5
b) f5
c) ♗b2
d) ♗b5

#6. White to move
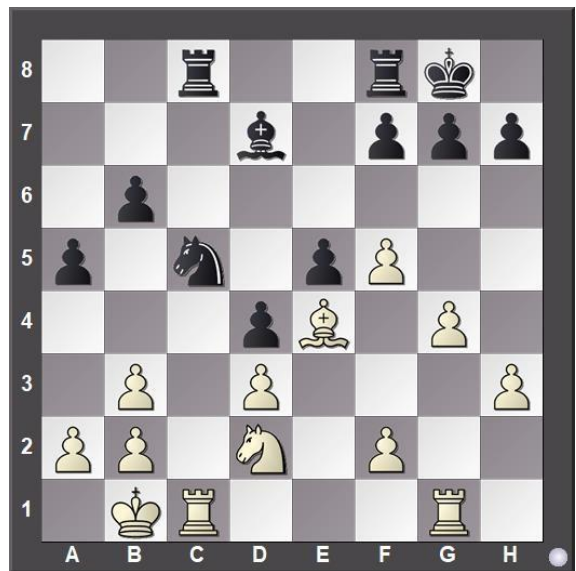
Black just played e7 to e5.
Which pawn can be captured?

a) Black's b-pawn
b) Black's d-pawn
c) Black's e-pawn
d) White can't capture a pawn.

#7. White to move
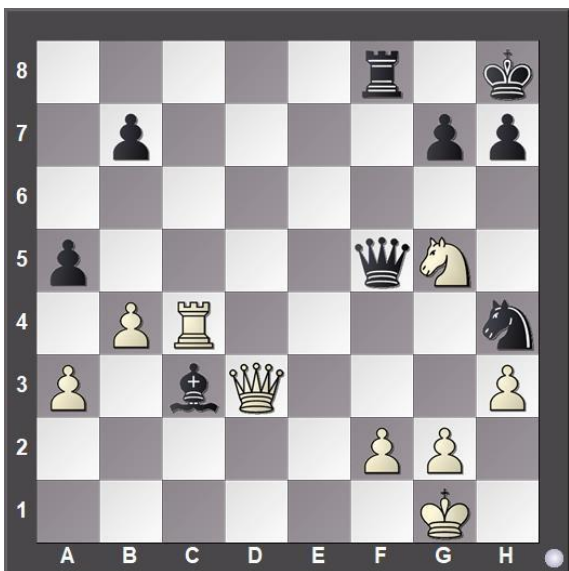
What piece should White capture?

a) Black's Queen.
b) Black's Knight.
c) Black's Bishop.
d) Black's Pawn.

#8. Black to move
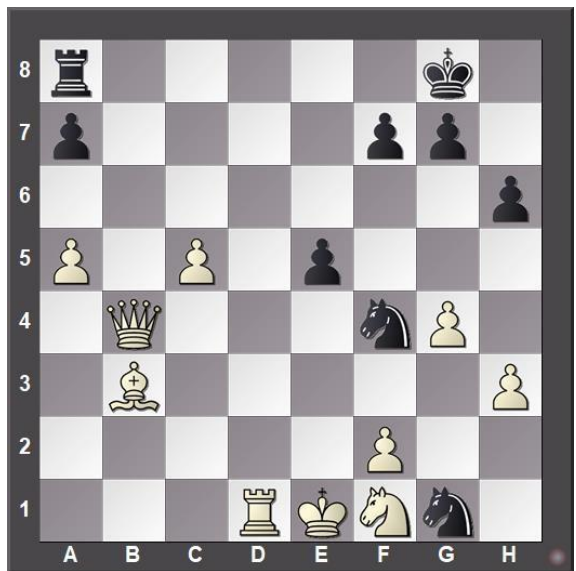
What is Black's best move?

a) ♞d3
b) ♞f3
c) ♞g2
d) ♞×h3
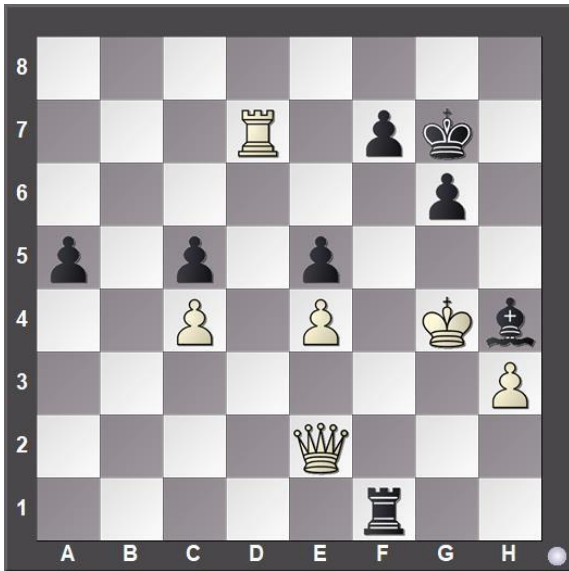
#9. Black to move

How many moves does Black need to checkmate White?

a) 1 move
b) 2 moves
c) 3 moves
d) Impossible to tell

_____

#10. White to move
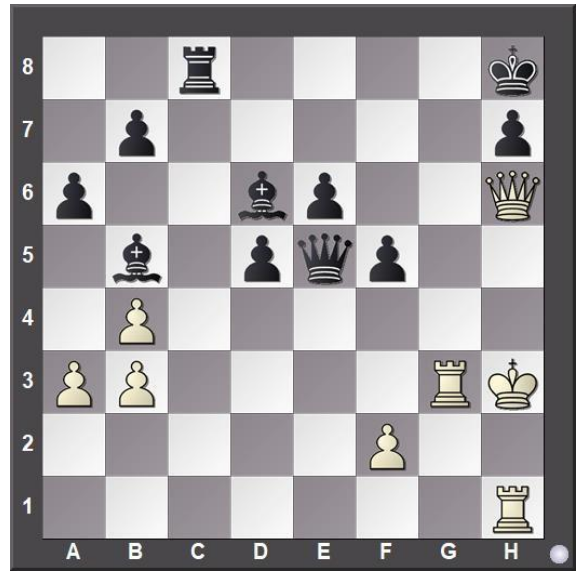
What is White's best move?

a) ♕g7
b) ♖g7
c) ♖g8
d) ♕×h7

_____

#11. Black to move

What is Black's best move?

a) ♞×h2
b) ♛×h2
c) ♜×g2
d) d×c
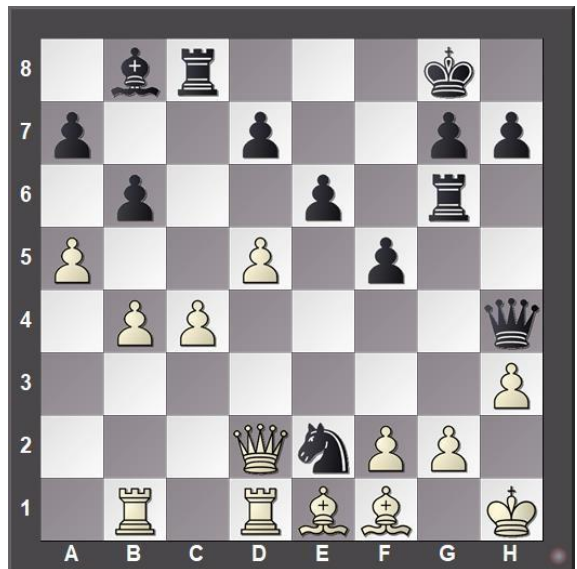
#12. Black to move

If Black can checkmate White in two moves, what is the *first* move?

a) ♞g3
b) ♛×h3
c) ♜×g2
d) ♛×f2

#13. Black to move
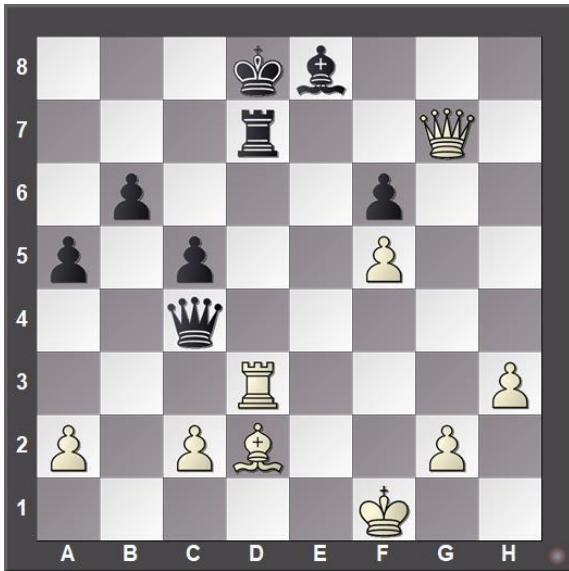
What is Black's best move?

a) ♖d4
b) ♖×d3
c) ♕f7
d) ♕×d3

_____

#14. White to move
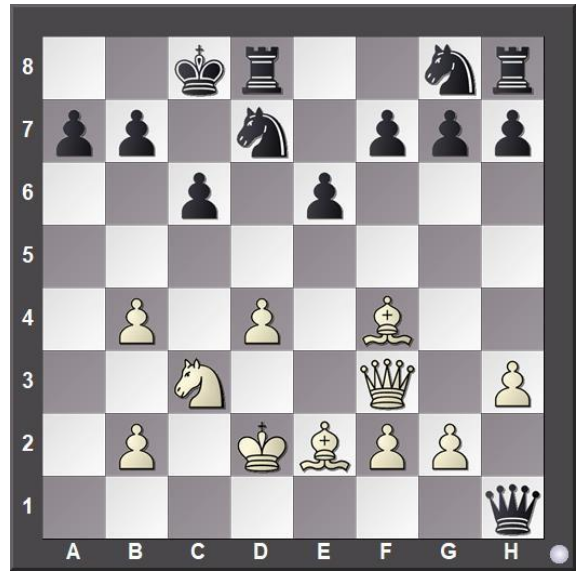
How many moves does White need to checkmate Black?

a) 1 move
b) 2 moves
c) 3 moves
d) Impossible to tell

_____

#15. White to move
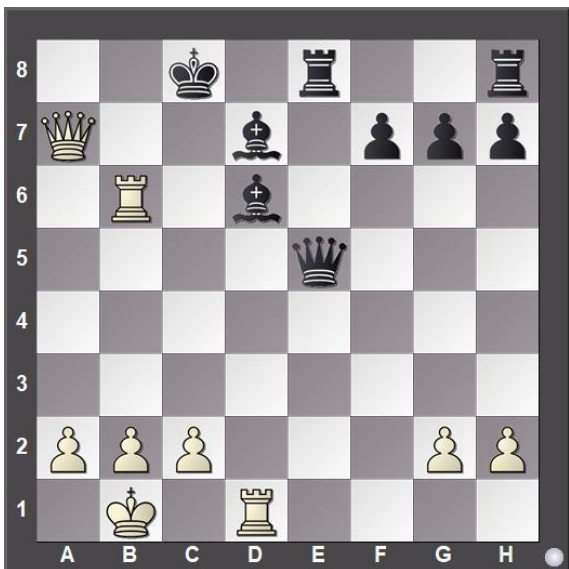
What piece does White need to sacrifice to checkmate Black?

a) White b6-Rook
b) White d1-Rook
c) White Queen
d) None

#16. White to move
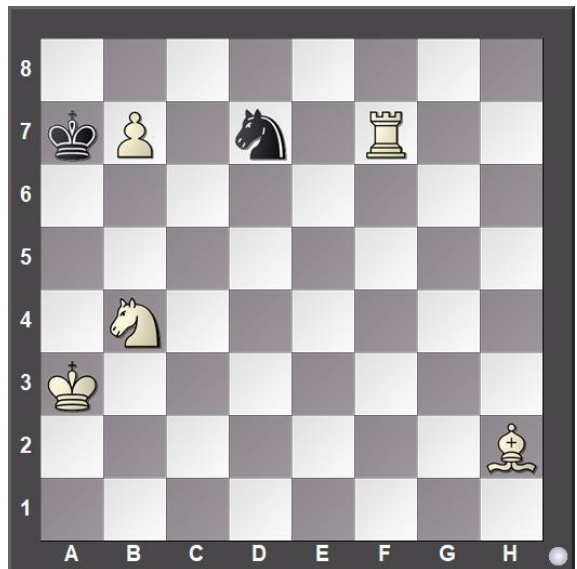
To which piece should White promote the pawn?

a) Queen
b) Rook
c) Knight
d) Bishop

University Interscholastic League
A+ Chess Puzzle Contest
2023-2024 Invitational — Grades 2 & 3

ANSWER KEY

Test

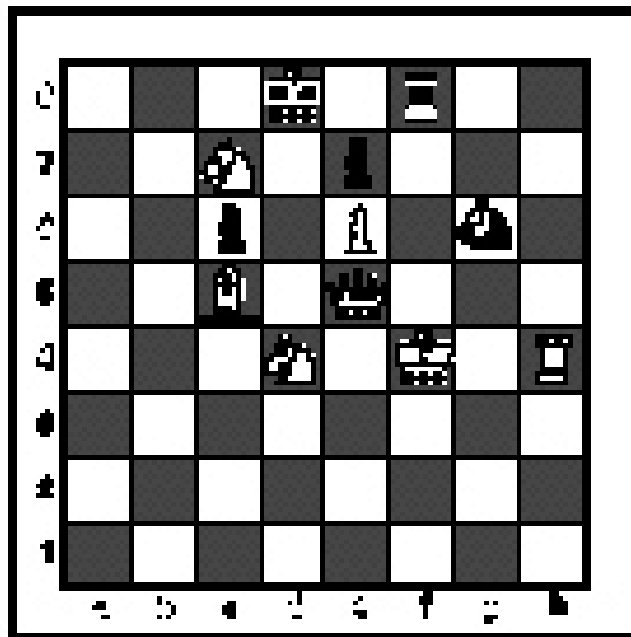|				
1.	C		9.	A
2.	B		10.	D
3.	D		11.	B
4.	B		12.	B
5.	C		13.	D
6.	C		14.	B
7.	A		15.	A
8.	B		16.	A

Tiebreaker

1.	B		5.	C
2.	C		6.	C
3.	C		7.	A
4.	C		8.	B

University Interscholastic League

Chess Puzzle Solving
grades 4 & 5

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

How to read and answer questions on this test

• To answer the questions on this test, you'll need to know how to read chess moves. It's simple to do.

• Every square on the board has an "address" made up of a letter and a number.
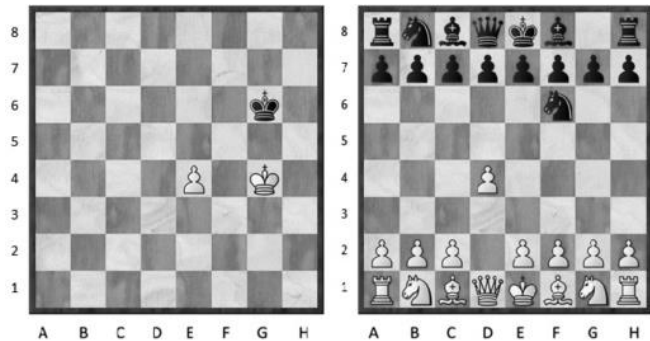
a8	b8	c8	d8	e8	f8	g8	h8
a7	b7	c7	d7	e7	f7	g7	h7
a6	b6	c6	d6	e6	f6	g6	h6
a5	b5	c5	d5	e5	f5	g5	h5
a4	b4	c4	d4	e4	f4	g4	h4
a3	b3	c3	d3	e3	f3	g3	h3
a2	b2	c2	d2	e2	f2	g2	h2
a1	b1	c1	d1	e1	f1	g1	h1

Piece Names	Each chessman can also be represented by a symbol, except for the pawn. (Figurine Notation)
King	♔
Queen	♕
Rook	♖
Bishop	♗
Knight	♘
Pawn	**a-h** (We write the file it's on.)

• To make them easy to read, the questions on this test use the figurine piece symbols on the right, above.

• When answering the puzzle questions, remember that white pawns move "up" the diagrams. Black pawns move "down" the diagrams.
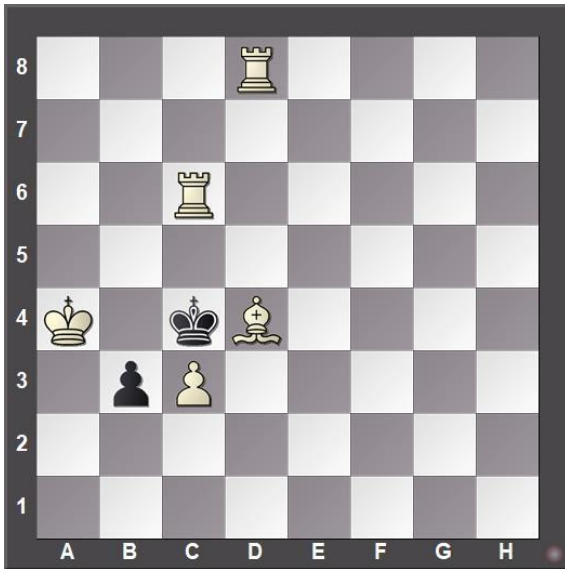
At right are two sample moves.

If you look closely at the diagrams in the questions below, you'll see that the frame around the diagram labels the ranks (1-8) and files (a-h) to help you.

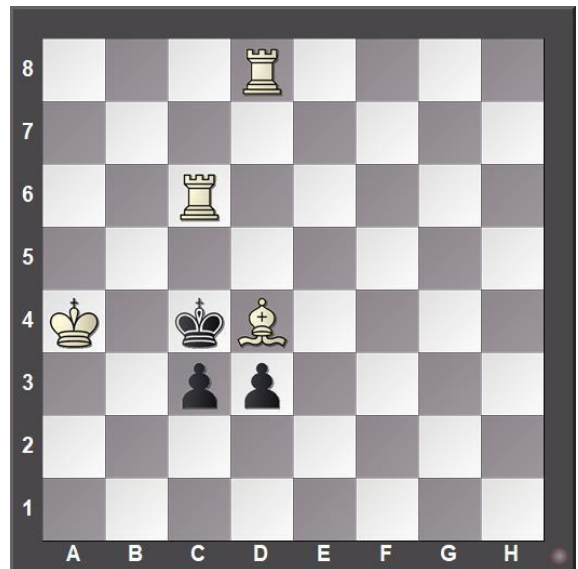White has just played **e4**.   Black has just played ...♘**f6**

#1. Black to move

What term best describes this situation?

a) Black is in checkmate.
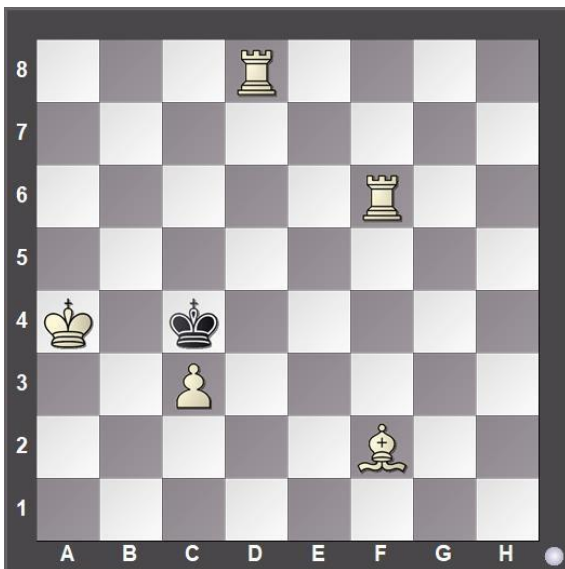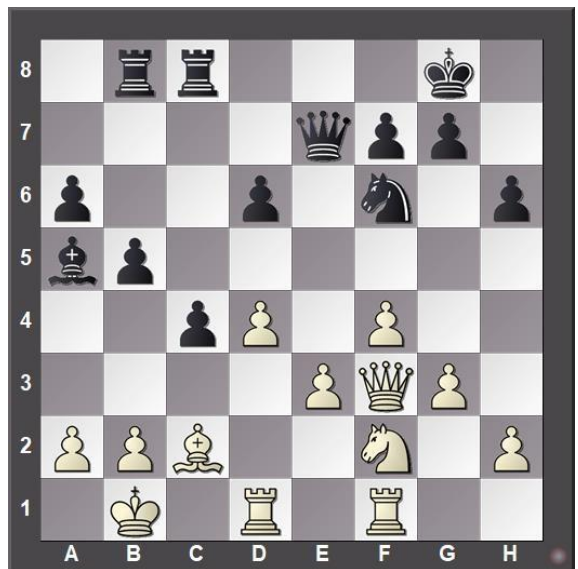b) Black is in stalemate.
c) Black is in check.
d) None of the above.

#2. Black to move

What term best describes this situation?

a) Black is in checkmate.
b) Black is in stalemate.
c) Black is in check.
d) None of the above.

#3. Black to move

What term best describes this situation?

a) Black is in checkmate.
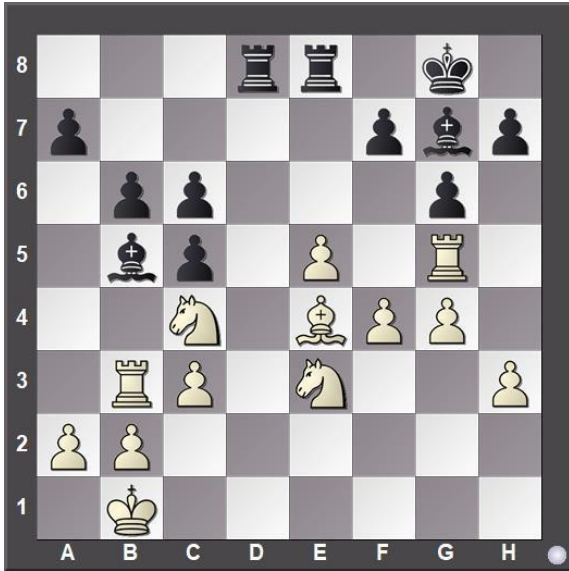b) Black is in stalemate.
c) Black is in check.
d) None of the above.

#4. Black to move

White just played d2 to d4. Which pawn can be captured?

a) Black's b-pawn
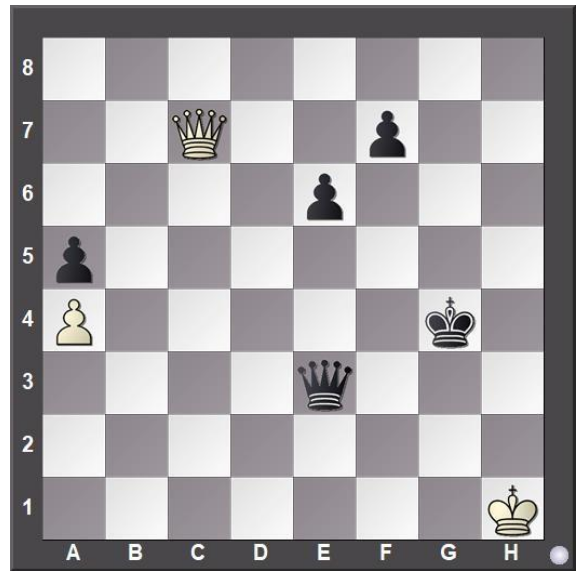b) Black's d-pawn
c) Black's g-pawn
d) None of the above

#5.

#6. White to move

Which side has a material advantage?

a) White
b) It is even.
c) Black
d) It is not possible to tell.

What is White's best move?

a) ♕×f7
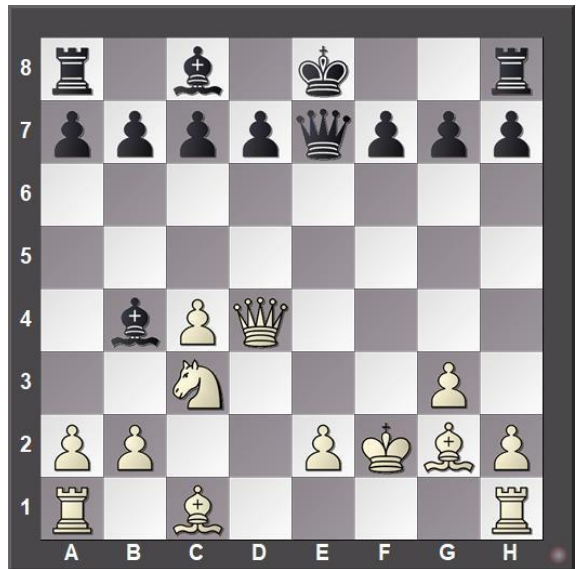b) ♕c4
c) ♕g3
d) ♔g2

#7. Black to move
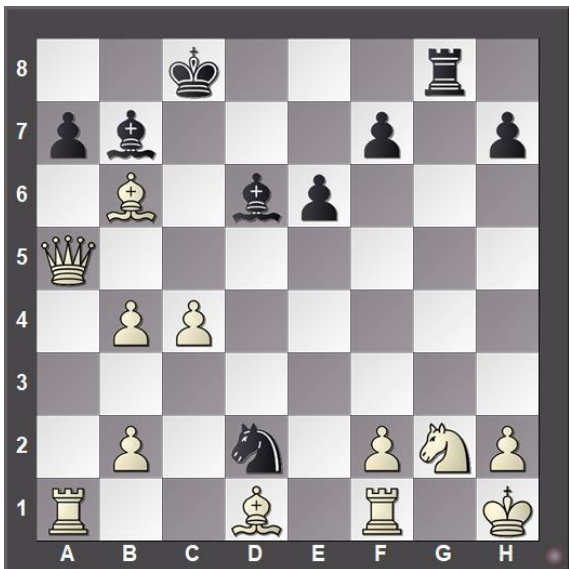
#8. Black to move

If Black can checkmate White, how many moves does Black need?

a) 1 move
b) 2 moves
c) 3 moves
d) 4 moves

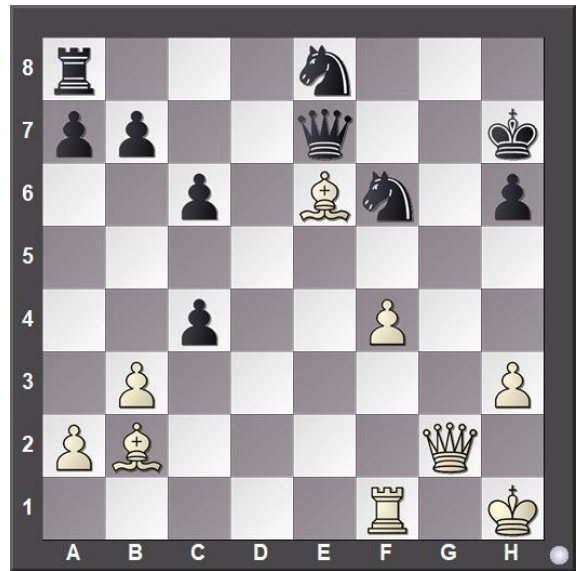What is Black's best move?

a) ♗×c3
b) d5
c) ♕f6
d) ♗c5

#9. Black to move

What is Black's best move?

a) ♛×d3
b) ♜ad8
c) ♜e1
d) ♝×d3

#10. White to move

If White can checkmate Black in two moves, what is the *second* move?
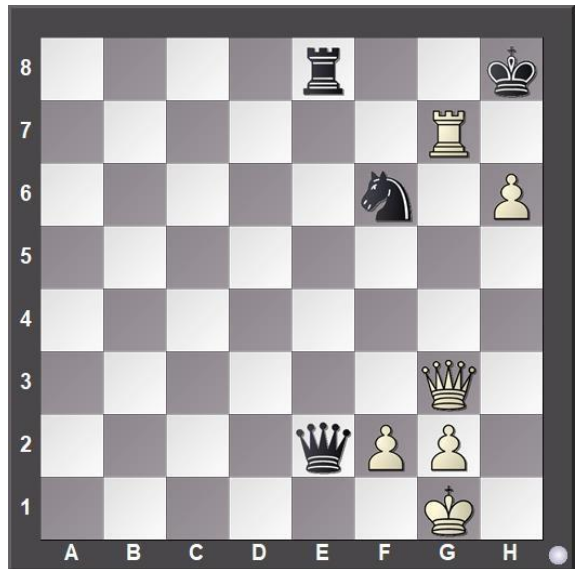
a) ♕g8
b) ♕g7
c) ♗g7
d) ♗f5

#11. White to move

What is White's best move?

a) ♘ge4
b) ♘ce4
c) ♖×f5
d) ♕h5

#12. White to move

What is White's best move?

a) ♖g8
b) ♖h7
c) ♖f7
d) h7

#13. Black to move
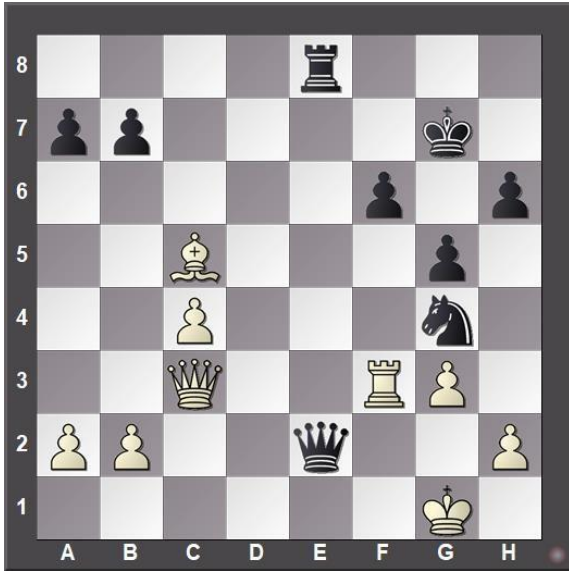
If Black can checkmate White in three moves, what is the *third* move?

a) ♕×f3
b) ♞×h2
c) ♜e1
d) ♕h3

#14. Black to move
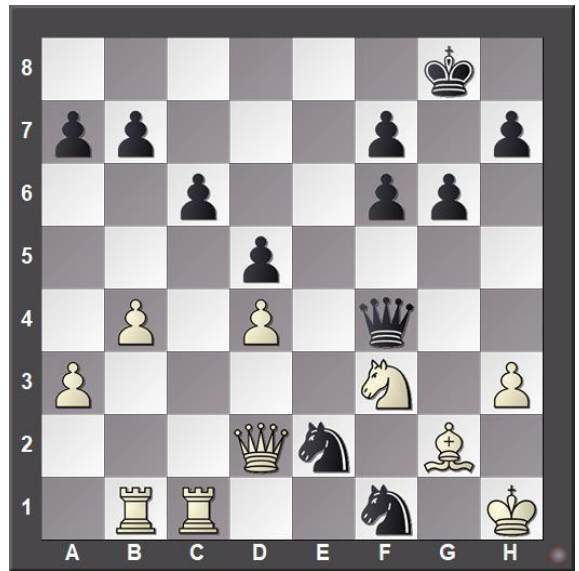
What is Black's best move?

a) ♞eg3
b) ♞fg3
c) ♕×f3
d) ♕h2

#15. White to move
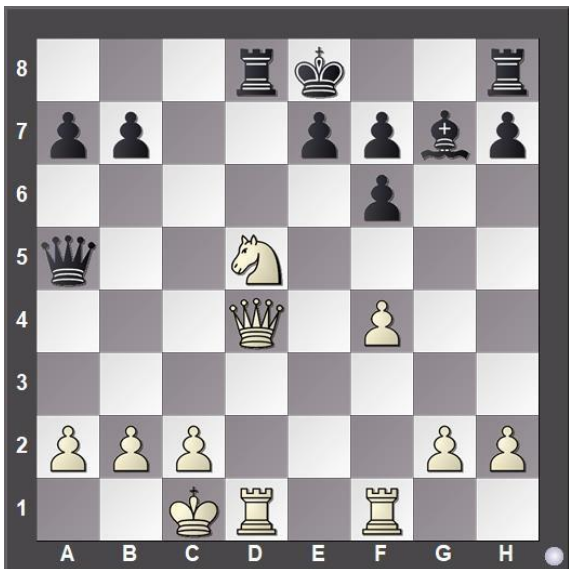
What is White's best move?

a) ♞c7
b) ♞×f6
c) ♕a4
d) ♕×f6

#16. White to move
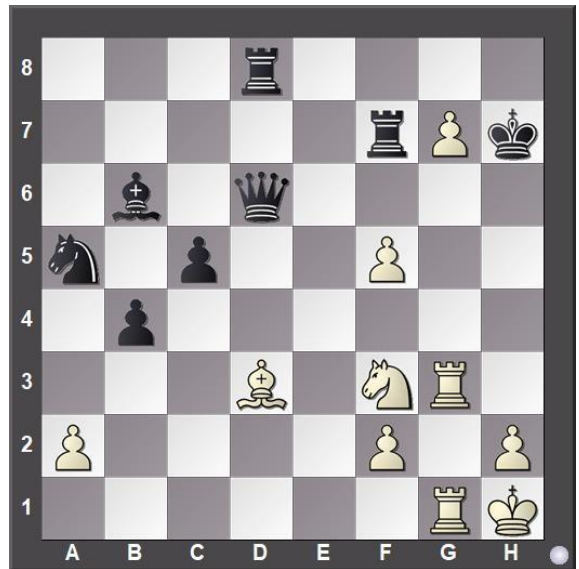
If White can checkmate Black, how many moves does White need, with the best play?

a) 1 move
b) 2 moves
c) 3 moves
d) 4 moves

#17. White to move
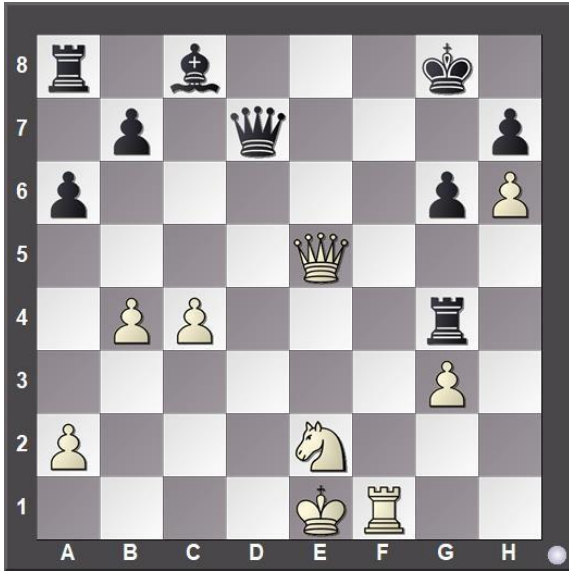
What is White's best move?

a) ♖f8
b) ♖f7
c) ♕g7
d) ♕h8

#18. White to move
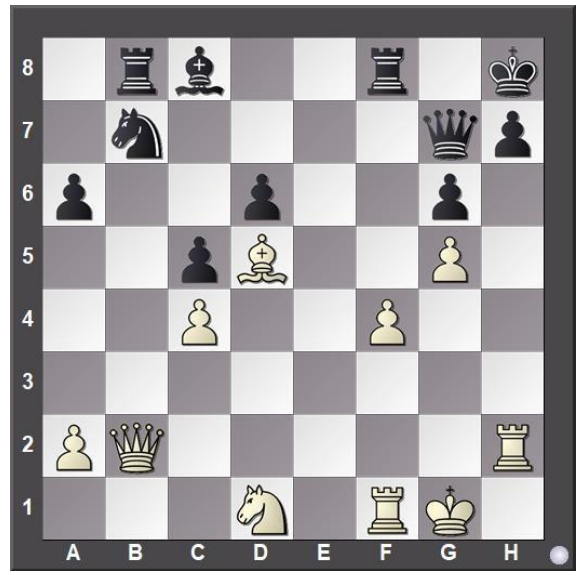
If White can checkmate Black in four moves, what is the *second* move?

a) ♕h2
b) ♖×h7
c) ♕×g7
d) ♖h6

#19. White to move

What is White's best move?

a) d5
b) ♕×h7
c) ♕g6
d) ♘×h7

#20. White to move
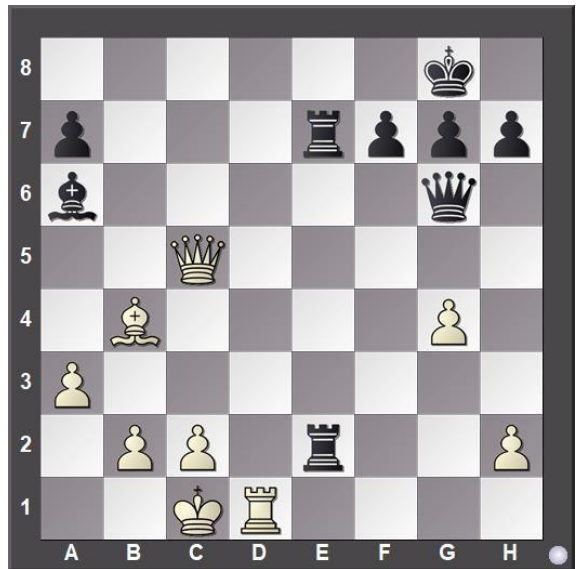
What is White's best move?

a) ♕×e7
b) ♕×a7
c) ♖d8
d) ♖d7

University Interscholastic League
A+ Chess Puzzle Contest
2023-2024 Invitational — Grades 4 & 5

ANSWER KEY

Test

1.	C		11.	B
2.	A		12.	B
3.	D		13.	D
4.	B		14.	D
5.	A		15.	C
6.	C		16.	D
7.	C		17.	D
8.	D		18.	A
9.	D		19.	A
10.	D		20.	C

Tiebreaker

1.	B		5.	C
2.	C		6.	C
3.	C		7.	A
4.	C		8.	B

A+ ACADEMICS

University Interscholastic League

Chess Puzzle Solving

grades 6, 7, 8

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

How to read and answer questions on this test

• To answer the questions on this test, you'll need to know how to read chess moves. It's simple to do.

• Every square on the board has an "address" made up of a letter and a number.

Piece Names	Each chessman can also be represented by a symbol, except for the pawn. (Figurine Notation)
King	♔
Queen	♕
Rook	♖
Bishop	♗
Knight	♘
Pawn	**a-h** (We write the file it's on.)

a8	b8	c8	d8	e8	f8	g8	h8
a7	b7	c7	d7	e7	f7	g7	h7
a6	b6	c6	d6	e6	f6	g6	h6
a5	b5	c5	d5	e5	f5	g5	h5
a4	b4	c4	d4	e4	f4	g4	h4
a3	b3	c3	d3	e3	f3	g3	h3
a2	b2	c2	d2	e2	f2	g2	h2
a1	b1	c1	d1	e1	f1	g1	h1

• To make them easy to read, the questions on this test use the figurine piece symbols on the right, above.

• When answering the puzzle questions, remember that white pawns move "up" the diagrams. Black pawns move "down" the diagrams.

At right are two sample moves.

If you look closely at the diagrams in the questions below, you'll see that the frame around the diagram labels the ranks (1-8) and files (a-h) to help you.

White has just played **e4**.   Black has just played ... ♘**f6**

#1. White to move

What term best describes this situation?

a) White is in checkmate.
b) White is in stalemate.
c) White is in check.
d) None of the above.

_____

#2. White to move

What term best describes this situation?

a) White is in checkmate.
b) White is in stalemate.
c) White is in check.
d) None of the above.

_____

#3. White to move

What term best describes this situation?

a) White is in checkmate.
b) White is in stalemate.
c) White is in check.
d) None of the above.

#4. Black to move

White just played c2 to c4. Which pawn can be captured?

a) White's a-pawn
b) White's c-pawn
c) White's e-pawn
d) All of the above

#5.

Which side has a material advantage?

a) White
b) It is even.
c) Black
d) It is not possible to tell.

_____

#6. White to move
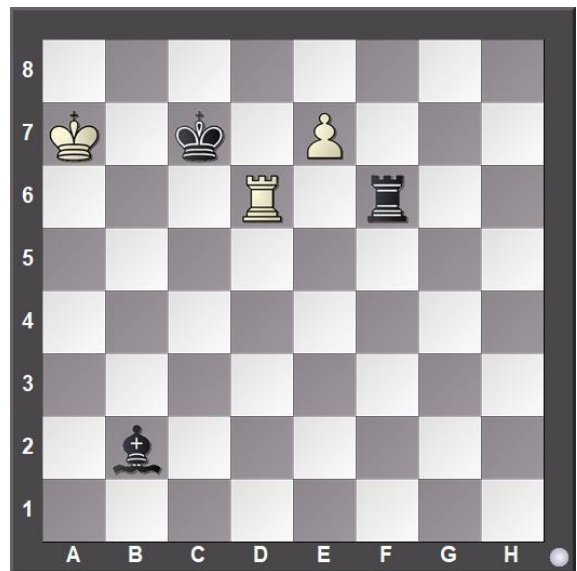
To which piece should White promote the pawn?

a) Queen
b) Rook
c) Bishop
d) Knight

_____

#7. White to move
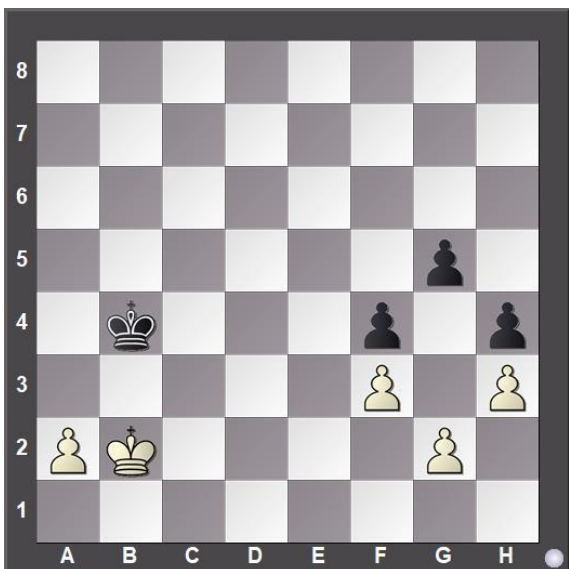
With the best play, what is the outcome of the game?

a) White wins
b) Black wins
c) Draw
d) Impossible to tell
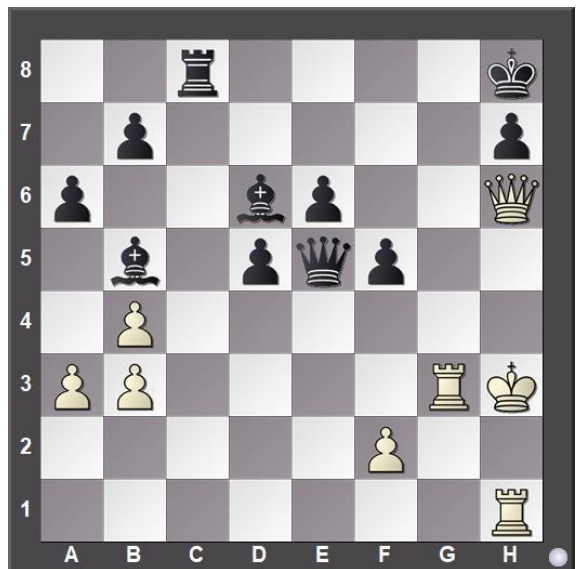
#8. Black to move

What piece should White sacrifice to checkmate Black?

a) White Queen
b) White g3-Rook
c) White h1-Rook
d) None

#9. White to move
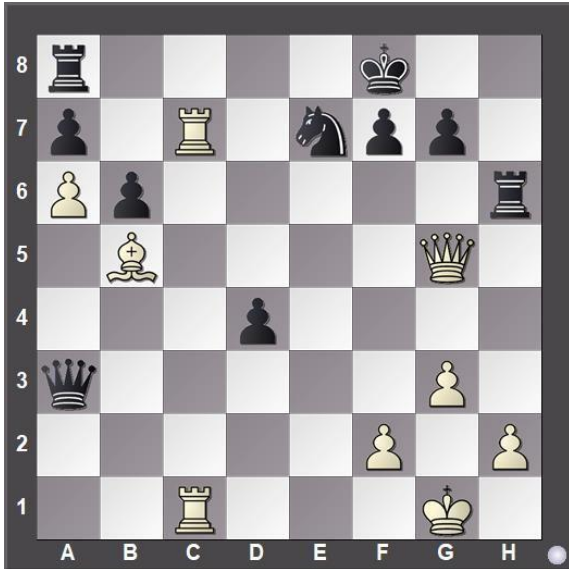
If White can checkmate Black, what is the *first* move?

a) ♕×e7
b) ♖×e7
c) ♖c8
d) White cannot checkmate Black

#10. Black to move
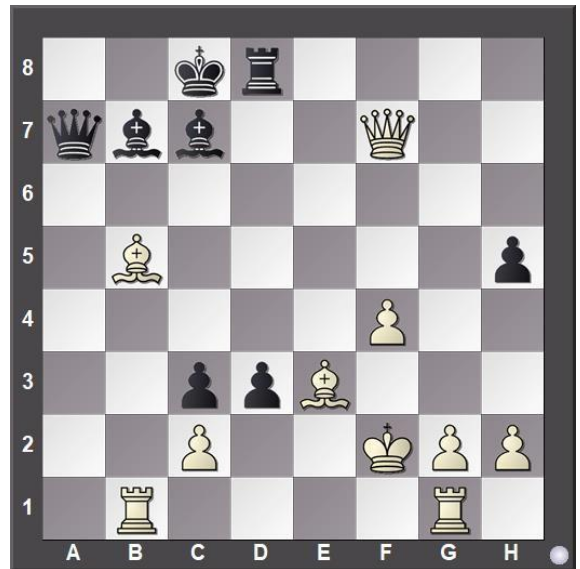
What piece does Black need to sacrifice to checkmate White?

a) Bishop
b) Rook
c) Queen
d) None

#11. White to move
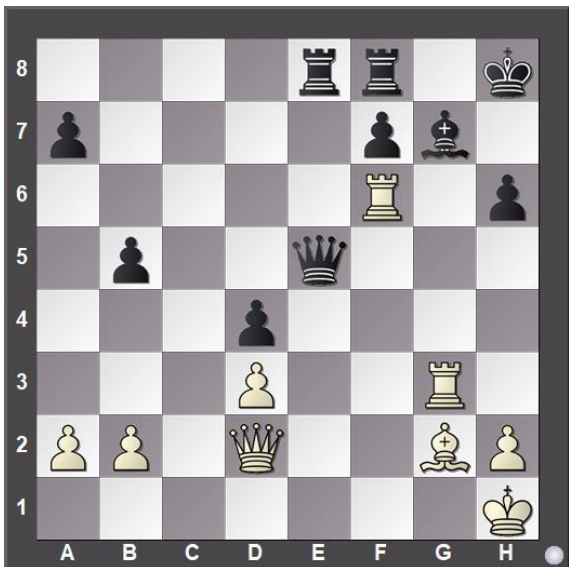
What is White's best move?

a) ♖×h6
b) ♖×g7
c) ♕×h6
d) ♗e4

#12. White to move
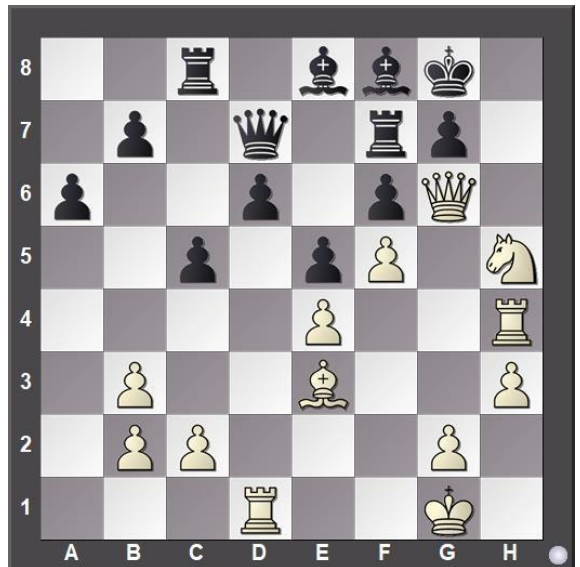
What is White's best move?

a) ♘×f6
b) ♘×g7
c) ♗h6
d) ♕h7

#13. White to move
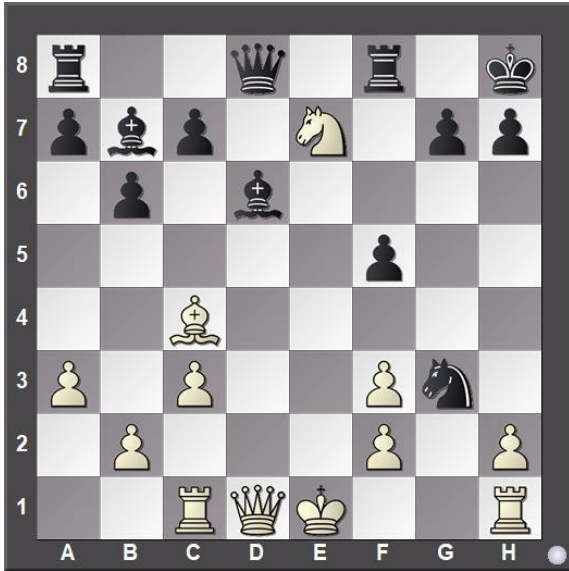
How many moves should it take to checkmate Black in this position?

a) 1 move
b) 2 moves
c) 3 moves
d) 4 moves

#14. White to move
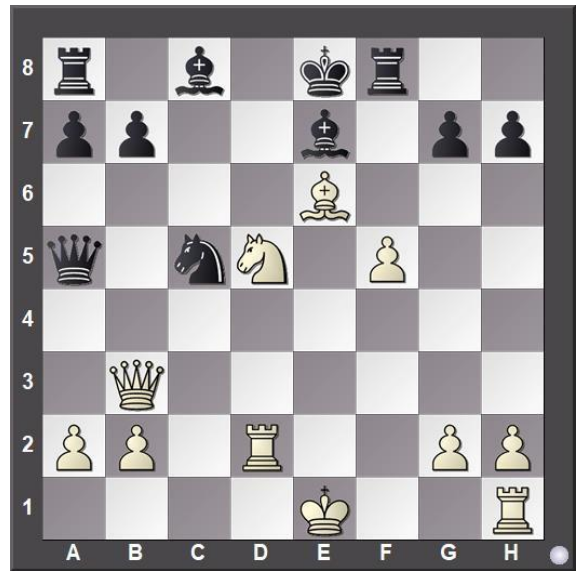
What is White's best move?

a) ♕b5
b) ♕a4
c) ♘c7
d) ♗d7

#15. White to move
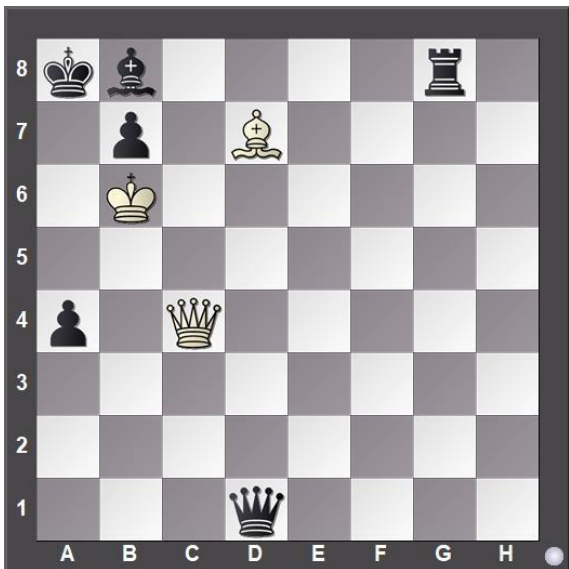
What is White's best move?

a) ♕×a4
b) ♕a6
c) ♕×g8
d) ♗c6

#16.
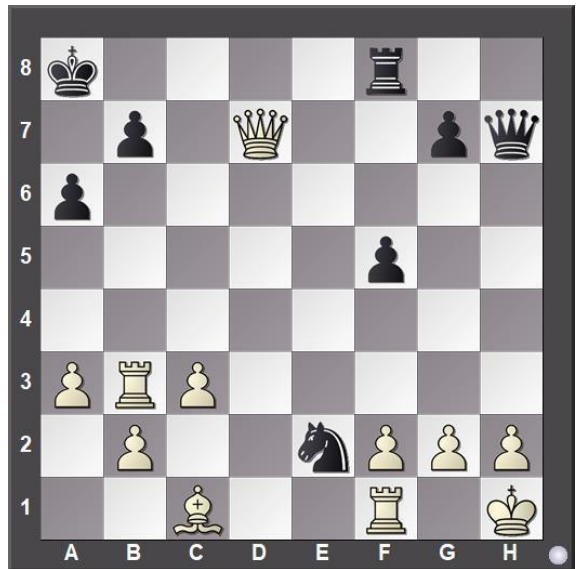
What is the outcome of the game?

a) Black wins.
b) White wins.
c) It is a draw.
d) It depends on whose move it
   is.

#17. White to move
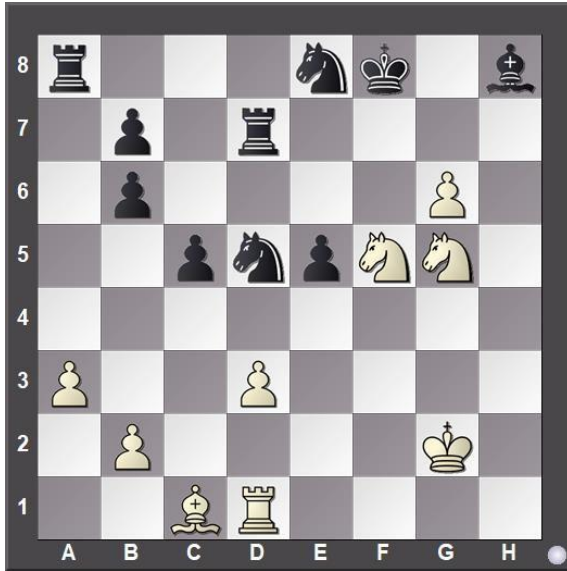
If White can checkmate Black in two moves, what's the *first* move?

a) ♘h7
b) ♘e6
c) g7
d) ♖f1

#18. White to move
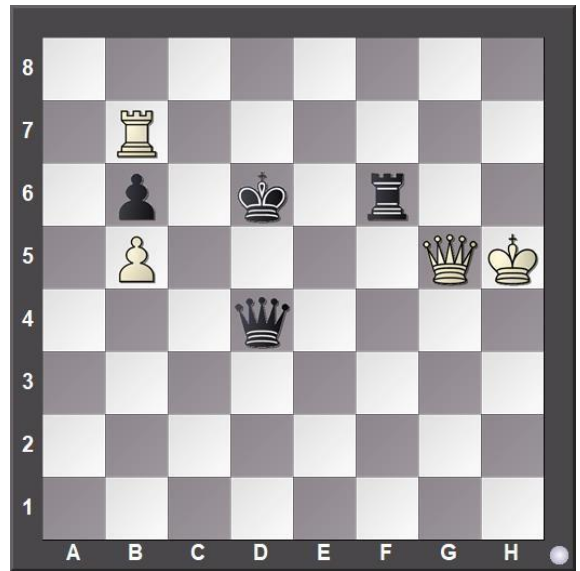
What is White's best move?

a) ♕×f6
b) ♕g3
c) ♖×b6
d) ♖d7

#19. White to move
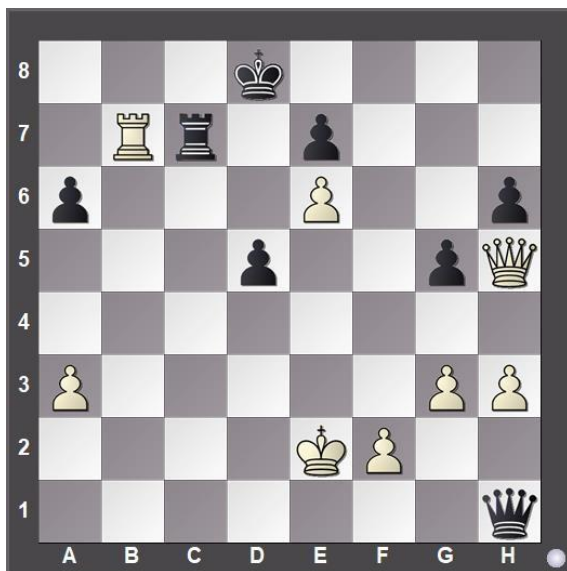
If White can checkmate Black in three moves, what is the *first* move?

a) ♖b8
b) ♖×c7
c) ♕e8
d) ♕×h6

#20. Black to move
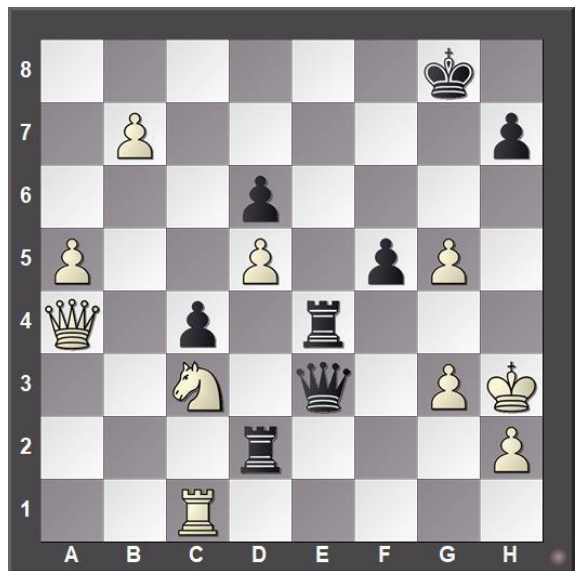
What is Black's best move?

a) ♖×h2
b) ♖h4
c) ♕×g5
d) ♕×g3

University Interscholastic League
A+ Chess Puzzle Contest
2023-2024 Invitational — Grades 6-8

ANSWER KEY

Test

1.	A		11.	C
2.	B		12.	D
3.	C		13.	C
4.	D		14.	A
5.	A		15.	B
6.	D		16.	D
7.	A		17.	B
8.	A		18.	A
9.	C		19.	C
10.	C		20.	B

Tiebreaker

1.	B		5.	C
2.	C		6.	C
3.	C		7.	A
4.	C		8.	B

A+ ACADEMICS

University Interscholastic League

Chess Puzzle Solving

TIEBREAKER - ALL GRADES

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

IMPORTANT INSTRUCTIONS:

This is the <u>tiebreaker</u> test for all grades for the Spring District UIL Chess Puzzle Solving Test.

Use the separate answer sheet to write all your answers. You have five (5) minutes to take this part of the test. There are eight (8) questions. Some questions are very difficult.

As before, the symbols for check and checkmate commonly used after moves have been omitted because they would be hints.

Each correct answer earns you one point. There is no penalty for incorrect answers or unanswered questions.

These questions are hard, but the puzzles are interesting! Good luck and have fun!

#1. Black to move
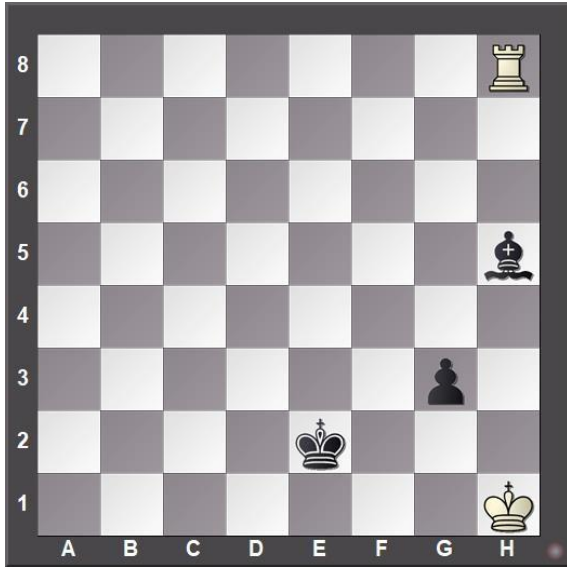

With the best play, what is the outcome of the game?

a) White wins.
b) Black wins.
c) Draw.
d) It is not possible to tell.

_____

#2. White to move
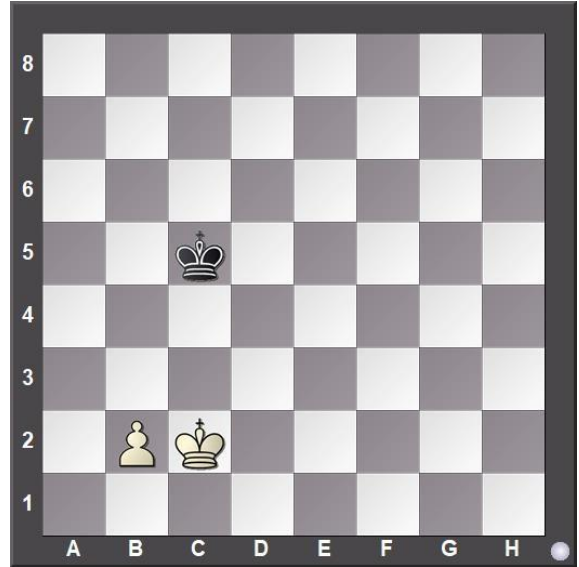
What is White's best move?

a) b3
b) ♔b3
c) ♔c3
d) ♔d3

_____

#3. White to move
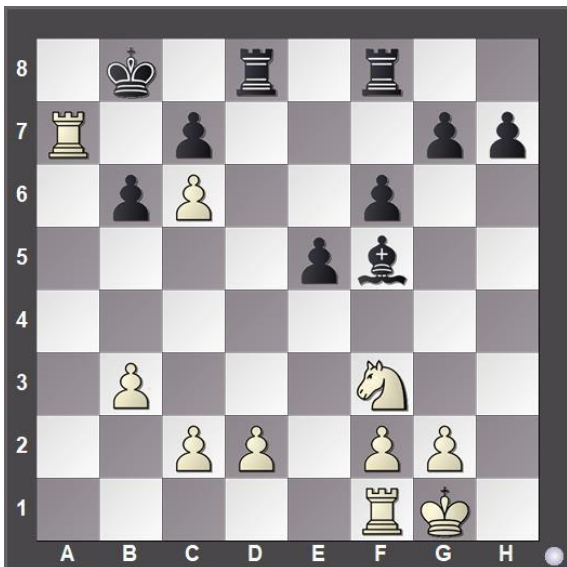
What is White's best move

a) ♖a6
b) ♖a8
c) ♖fa1
d) ♖×c7
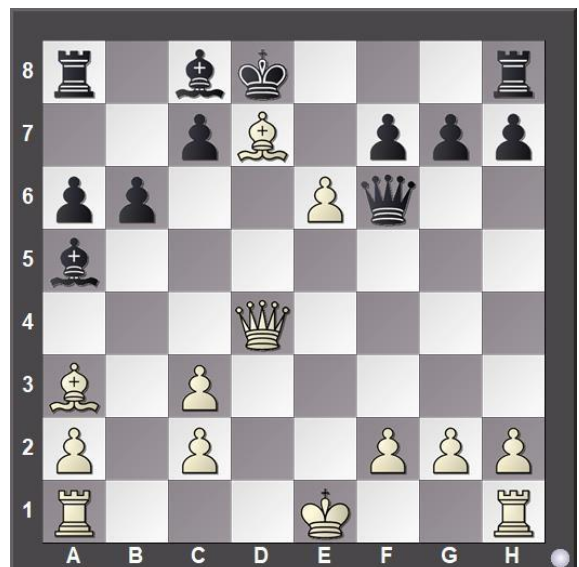
#4. White to move

What is White's best move?

a) e7
b) ♗e7
c) ♗c6
d) ♕×f6

#5. White to move

What is White's best move?

a) g3
b) ♘d6
c) ♕×e5
d) ♕×a5

#6. White to move

What is White's best move?

a) ♘g6
b) ♕h7
c) ♕h8
d) ♕×f7

#7. Black to move
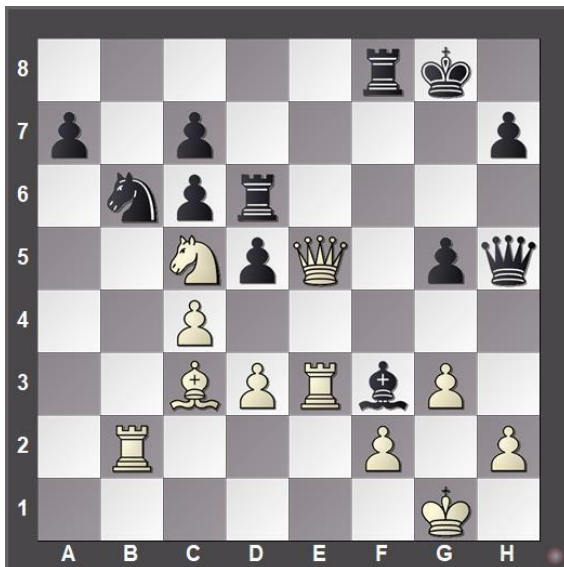
If Black can checkmate White in three moves, what is Black's *second* move?

a) ♖h6
b) ♖×f2
c) ♕×h2
d) ♕d1

#8. White to move

If White can checkmate Black in three moves, what is White's *first* move?

a) ♕×d7
b) ♕f8
c) ♖×c8
d) ♘f7

A+ ACADEMICS

University Interscholastic League

Chess Puzzle Solving
grades 2 & 3

DO NOT OPEN TEST
UNTIL TOLD TO DO SO

How to read and answer questions on this test

• To answer the questions on this test, you'll need to know how to read chess moves. It's simple to do.

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a8	b8	c8	d8	e8	f8	g8	h8
a7	b7	c7	d7	e7	f7	g7	h7
a6	b6	c6	d6	e6	f6	g6	h6
a5	b5	c5	d5	e5	f5	g5	h5
a4	b4	c4	d4	e4	f4	g4	h4
a3	b3	c3	d3	e3	f3	g3	h3
a2	b2	c2	d2	e2	f2	g2	h2
a1	b1	c1	d1	e1	f1	g1	h1

Piece Names — **Each chessman can also be represented by a symbol, except for the pawn.** (Figurine Notation)

Piece Names	Symbol
King	♔
Queen	♕
Rook	♖
Bishop	♗
Knight	♘
Pawn	a-h (We write the file it's on.)

• To make them easy to read, the questions on this test use the figurine piece symbols on the right, above.

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At right are two sample moves.

If you look closely at the diagrams in the questions below, you'll see that the frame around the diagram labels the ranks (1-8) and files (a-h) to help you.

White has just played **e4**.

Black has just played ...♘**f6**

#1. Black to move

What term best describes this situation?

a) Black is in checkmate.
b) Black is in stalemate.
c) Black is in check.
d) None of the above.

_____

#2. Black to move

What term best describes this situation?

a) Black is in checkmate.
b) Black is in stalemate.
c) Black is in check.
d) None of the above.

_____

#3. Black to move

What term best describes this situation?

a) Black is in check.
b) Black is in stalemate.
c) Black is in checkmate.
d) None of the above.

#4.

Which side has a material advantage?

a) White
b) Black
c) It's even.
d) It's not possible to tell without knowing
   who is to move.

#5. White to move

What is White's best move?

a) ♘×d5
b) ♖×e7
c) ♗×e7
d) ♘d7

#6. Black to move

White just played f2 to f4. Which pawn can be captured?

a) White's a-pawn
b) White's f-pawn
c) White's c-pawn
d) Black can't capture a pawn.

_____

_____
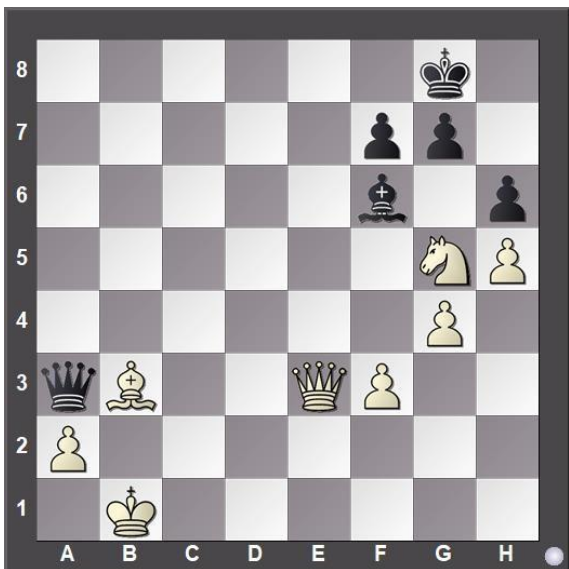
#7. White to move

What is White's best move?

a) ♕e7
b) f4
c) ♕d2
d) ♗xf7
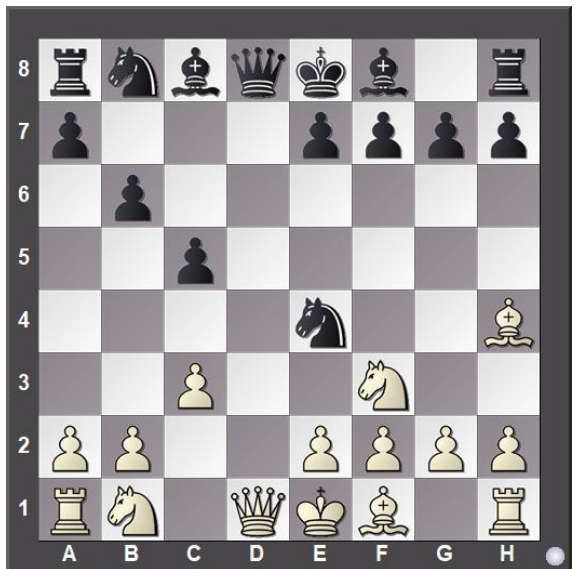
#8. White to move

What is White's best move?

a) ♕×d8
b) ♕a4
c) ♗×e7
d) ♘e5

#9. White to move
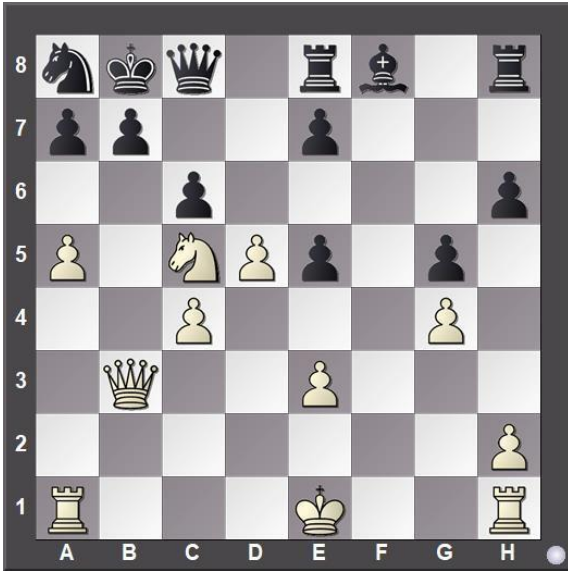
What is White's best move?

a) ♘d7
b) ♖b1
c) ♘a6
d) a6

#10. White to move
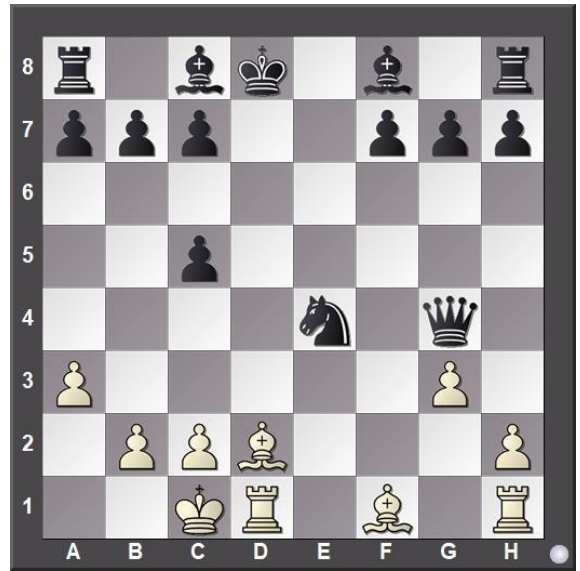
If White can checkmate Black, what is the piece that makes the last move?

a) White d1-Rook
b) White h1-Rook
c) White d2-Bishop
d) White f1-Bishop

#11. White to move
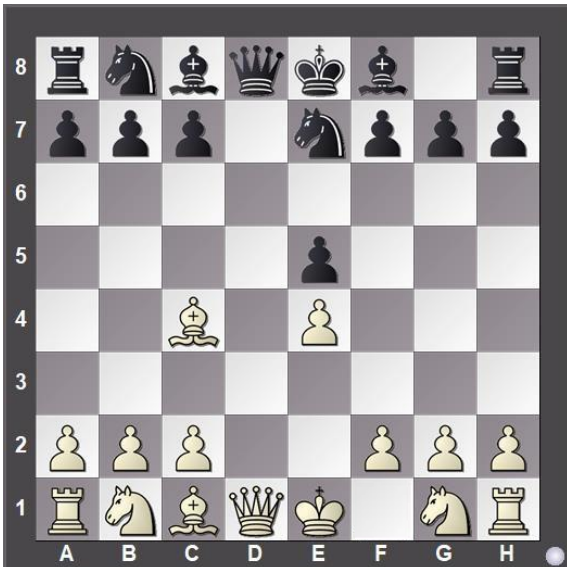
What is White's best move?

a) ♕ × d8
b) ♕h5
c) ♗ × f7
d) ♘f3

#12. White to move
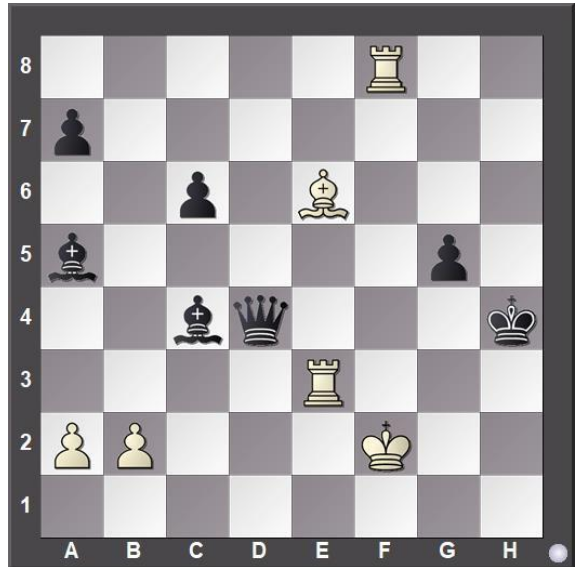
If White can checkmate Black in two moves, what is the *second* move?

a) ♖h8
b) ♖h3
c) ♗g4
d) None of the above

#13. White to move
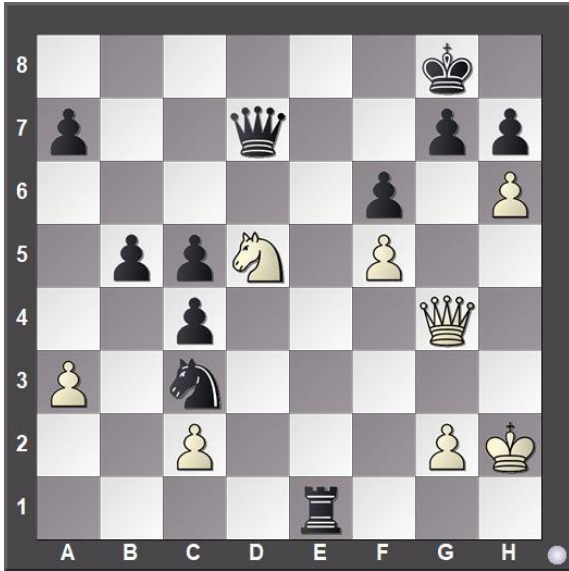
What is White's best move?

a) ♕×g7
b) ♕f3
c) ♘×f6
d) h×g

_____

#14. White to move
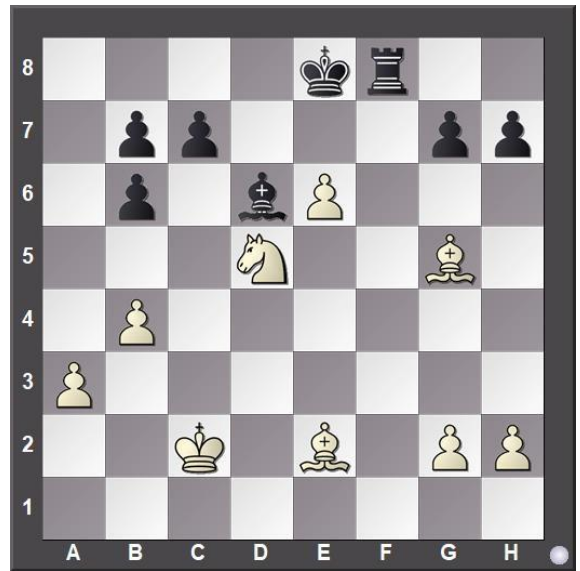
How many moves does White need to checkmate Black?

a) 1 move
b) 2 moves
c) 3 moves
d) Impossible to tell

_____

#15. Black to move
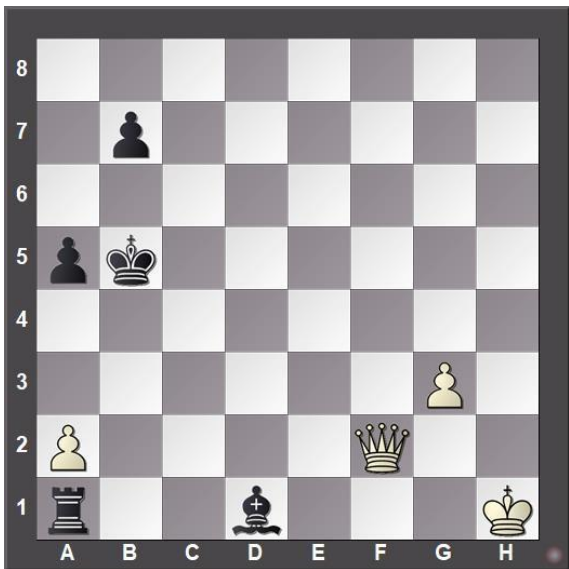
How many moves does Black need to checkmate White?

a) 1 move
b) 2 moves
c) 3 moves
d) Impossible to tell

#16. White to move

What is White's best move?

a) ♘f7
b) ♘e6
c) ♖×f8
d) ♖f7

University Interscholastic League
A+ Chess Puzzle Contest
2023-2024 Fall/Winter — Grades 2 & 3

ANSWER KEY

Test

1.	C		9.	C
2.	A		10.	A
3.	B		11.	C
4.	B		12.	B
5.	C		13.	C
6.	B		14.	B
7.	D		15.	B
8.	B		16.	A

Tiebreaker

1.	B		5.	D
2.	C		6.	C
3.	D		7.	C
4.	B		8.	C

A+ ACADEMICS

University Interscholastic League

Chess Puzzle Solving
grades 4 & 5

DO NOT OPEN TEST
UNTIL TOLD TO DO SO

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a8	b8	c8	d8	e8	f8	g8	h8
a7	b7	c7	d7	e7	f7	g7	h7
a6	b6	c6	d6	e6	f6	g6	h6
a5	b5	c5	d5	e5	f5	g5	h5
a4	b4	c4	d4	e4	f4	g4	h4
a3	b3	c3	d3	e3	f3	g3	h3
a2	b2	c2	d2	e2	f2	g2	h2
a1	b1	c1	d1	e1	f1	g1	h1

Piece Names	Each chessman can also be represented by a symbol, except for the pawn. (Figurine Notation)
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Queen	♕
Rook	♖
Bishop	♗
Knight	♘
Pawn	**a-h** (We write the file it's on.)

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White has just played **e4**.   Black has just played ... ♘**f6**

#1. Black to move

What term best describes this situation?

a) Black is in checkmate.
b) Black is in stalemate.
c) Black is in check.
d) None of the above.

#2. Black to move

What term best describes this situation?

a) Black is in checkmate.
b) Black is in stalemate.
c) Black is in check.
d) None of the above.

#3. Black to move

What term best describes this situation?

a) Black is in checkmate.
b) Black is in stalemate.
c) Black is in check.
d) None of the above.

#4. White to move

Black just played g7 to g5. Which pawn can be captured?

a) Black's f-pawn
b) Black's d-pawn
c) Black's g-pawn
d) All of the above

#5.

Which side has a material advantage?

a) White
b) It is even.
c) Black
d) It is not possible to tell.
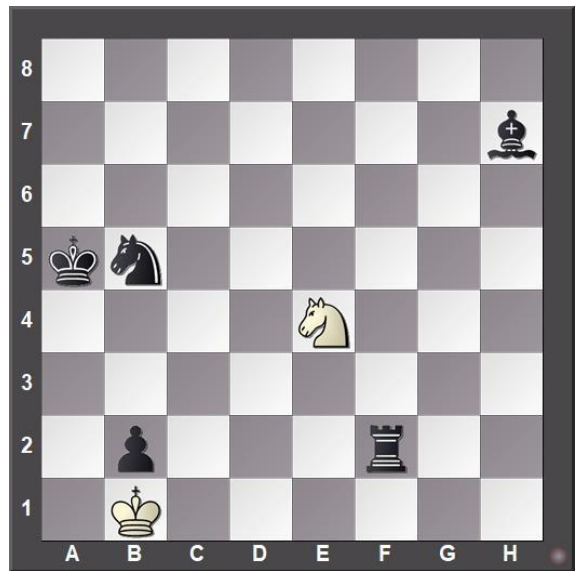
#6. Black to move

What is Black's best move?

a) ♗×e4
b) ♞c3
c) ♞a3
d) ♖f1

#7. White to move
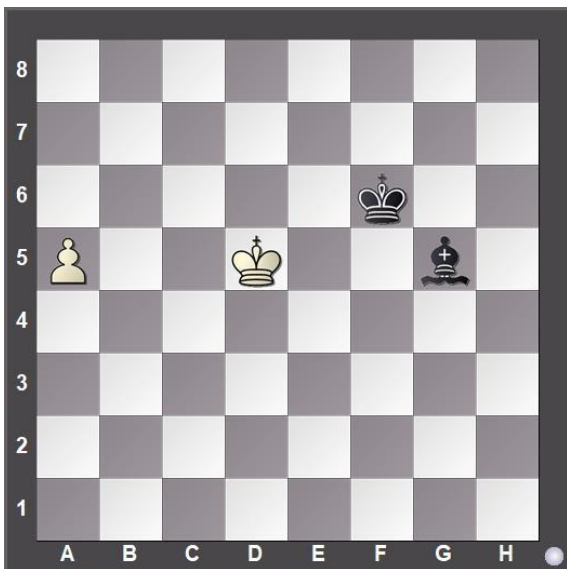
With the best play, what is the outcome
of the game?

a) White wins
b) Black wins
c) Draw
d) Impossible to tell
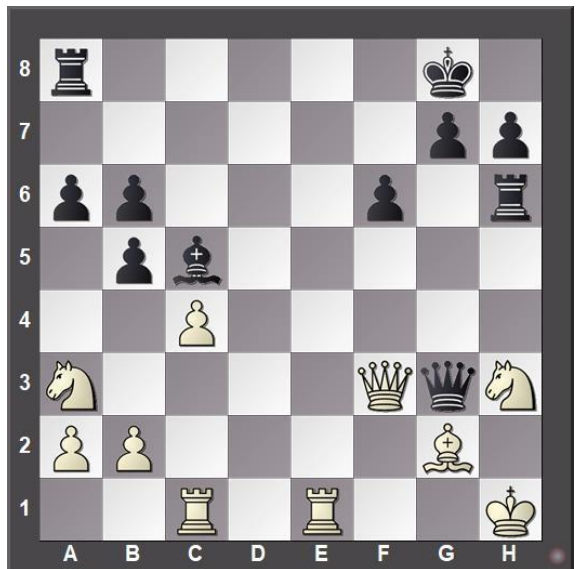
#8. Black to move

What is Black's best move?

a) ♕×f3
b) ♖×h3
c) ♗f2
d) ♕×e1

#9. Black to move
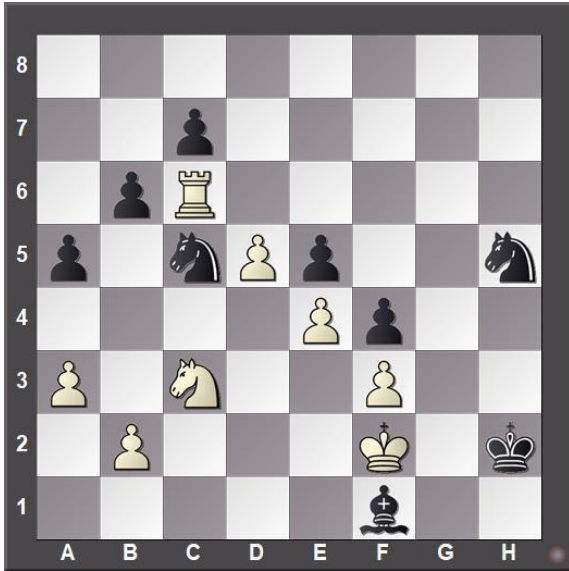
How many moves does Black
need to checkmate White?

a) 1 move
b) 2 moves
c) 3 moves
d) Impossible to tell

_____
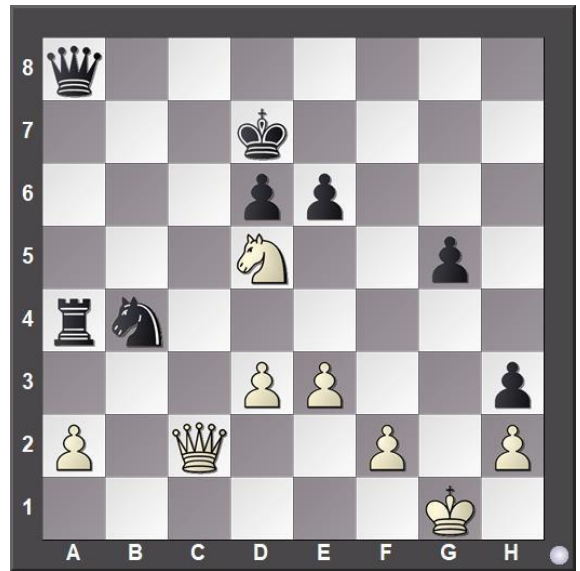
#10. White to move

What is White's best move?

a) ♘×b4
b) ♘b6
c) ♕×a4
d) ♕c7

_____

#11. White to move
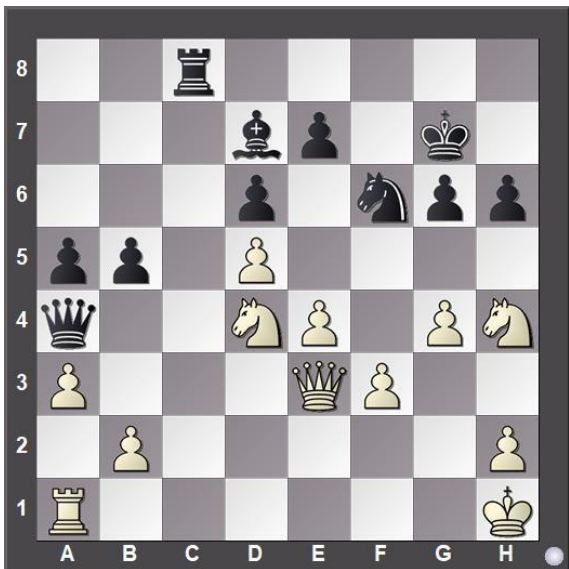
What is White's best move?

a) ♘e6
b) ♘df5
c) ♘hf5
d) b3

#12. White to move
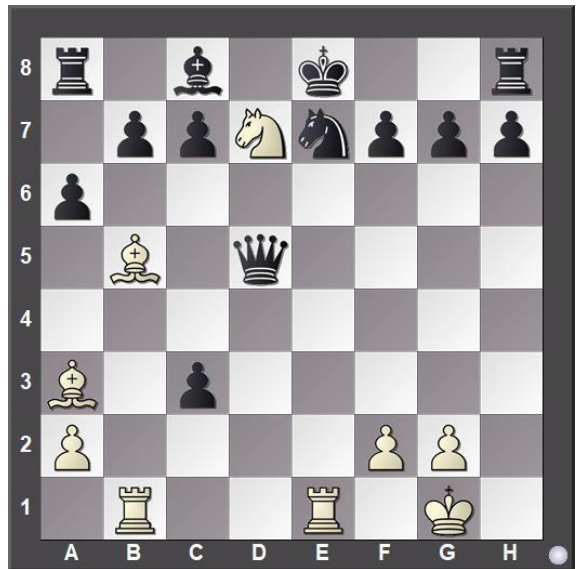
What is White's best move?

a) ♖bd1
b) ♖e7
c) ♗d7
d) ♘f6

#13. White to move
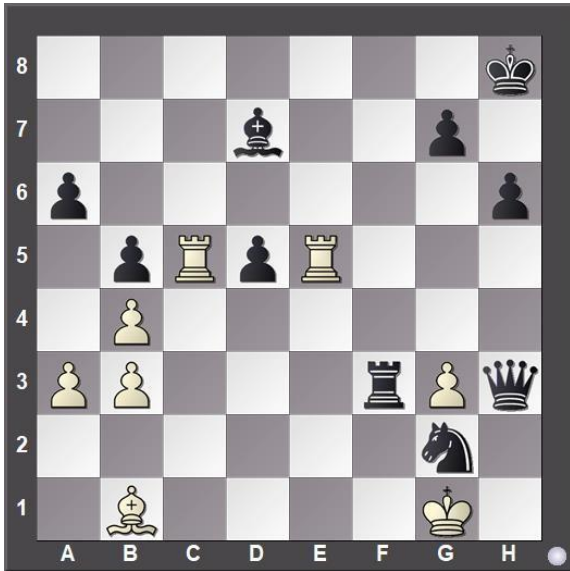
If White can checkmate Black, how
many moves does White need?

a) 1 move
b) 2 moves
c) 3 moves
d) Impossible to tell

#14. Black to move

What is Black's best move?

a) ♝×g2
b) ♜×g2
c) ♜g3
d) ♛×h3

#15. White to move
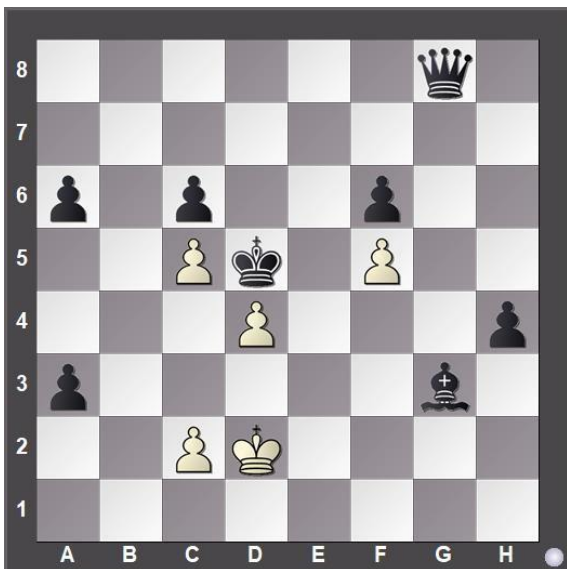
What is the outcome of the game, with
the best play?

a) White wins.
b) Black wins.
c) Draw.
d) It is not possible to tell.
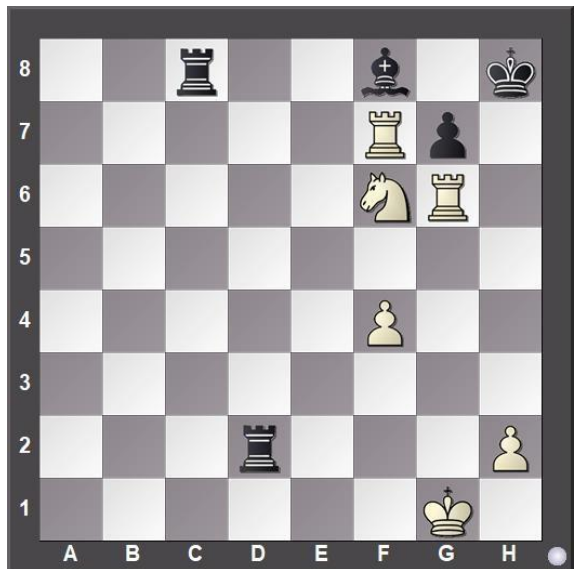
#16. White to move

What piece White should sacrifice
to checkmate Black?

a) White f7-Rook
b) White g6-Rook
c) White Night
d) None

#17. White to move
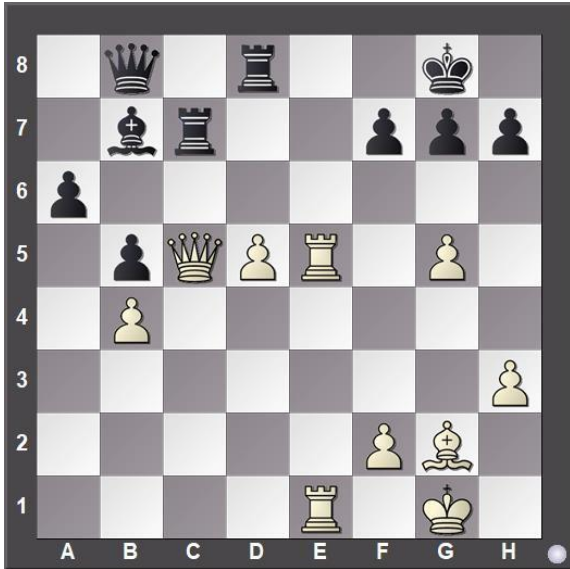
What is White's best move?

a) ♕e3
b) ♕f8
c) ♕×c7
d) ♕b6

#18. Black to move
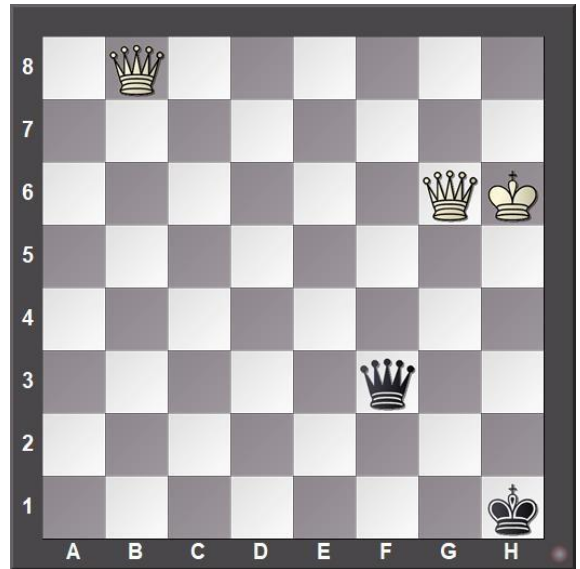
What is Black's best move?

a) ♕e3
b) ♕f8
c) ♕f4
d) ♕h3

#19. White to move

If White can checkmate Black in three moves, what is the first move?

a) ♖4e7
b) ♘e7
c) ♖×f8
d) ♘f6

#20. White to move
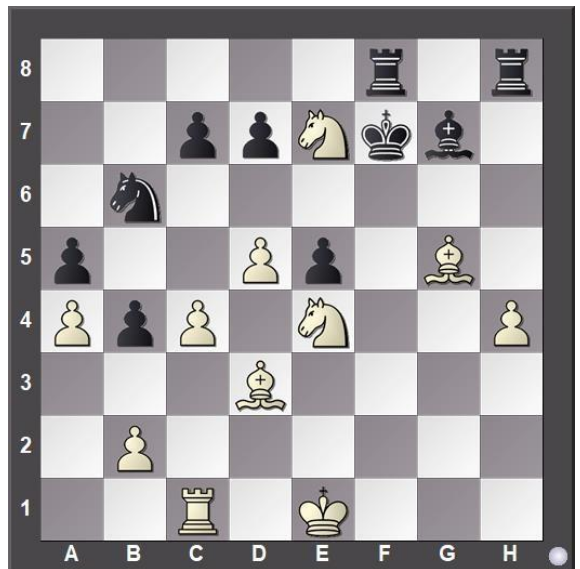
What is White's best move?

a) ♖c2
b) ♘g6
c) ♘d6
d) ♗e2

University Interscholastic League
A+ Chess Puzzle Contest
2023-2024 Fall/Winter — Grades 4 & 5

ANSWER KEY

Test

1.	D		11.	D
2.	A		12.	D
3.	B		13.	C
4.	D		14.	D
5.	C		15.	A
6.	B		16.	B
7.	A		17.	C
8.	B		18.	C
9.	B		19.	D
10.	D		20.	C

Tiebreaker

1.	B		5.	D
2.	C		6.	C
3.	D		7.	C
4.	B		8.	C

A+ ACADEMICS

University Interscholastic League

Chess Puzzle Solving
grades 6, 7, 8

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

How to read and answer questions on this test

• To answer the questions on this test, you'll need to know how to read chess moves. It's simple to do.

• Every square on the board has an "address" made up of a letter and a number.

a8	b8	c8	d8	e8	f8	g8	h8
a7	b7	c7	d7	e7	f7	g7	h7
a6	b6	c6	d6	e6	f6	g6	h6
a5	b5	c5	d5	e5	f5	g5	h5
a4	b4	c4	d4	e4	f4	g4	h4
a3	b3	c3	d3	e3	f3	g3	h3
a2	b2	c2	d2	e2	f2	g2	h2
a1	b1	c1	d1	e1	f1	g1	h1

Piece Names	Each chessman can also be represented by a symbol, except for the pawn. (Figurine Notation)
King	♔
Queen	♕
Rook	♖
Bishop	♗
Knight	♘
Pawn	**a-h** (We write the file it's on.)

• To make them easy to read, the questions on this test use the figurine piece symbols on the right, above.

• When answering the puzzle questions, remember that white pawns move "up" the diagrams. Black pawns move "down" the diagrams.

At right are two sample moves.

If you look closely at the diagrams in the questions below, you'll see that the frame around the diagram labels the ranks (1-8) and files (a-h) to help you.

White has just played **e4**.   Black has just played ... ♘**f6**

#1. White to move

What term best describes this situation?

a) White is in checkmate.
b) White is in stalemate.
c) White is in check.
d) None of the above.

_____

#2. White to move

What term best describes this situation?

a) White is in checkmate.
b) White is in stalemate.
c) White is in check.
d) None of the above.

_____

#3. White to move

What term best describes this situation?

a) White is in checkmate.
b) White is in stalemate.
c) White is in check.
d) None of the above.

#4. White to move

Black just played d7 to d5. Which pawn can be captured?

a) Black's c-pawn
b) Black's d-pawn
c) Black's f-pawn
d) None of the above

#5.

Which side has a material advantage?

a) White
b) It is even.
c) Black
d) It is not possible to tell.

_____

#6. Black to move

What piece should Black capture?

a) Pawn
b) Bishop
c) Night
d) Queen

_____

#7.
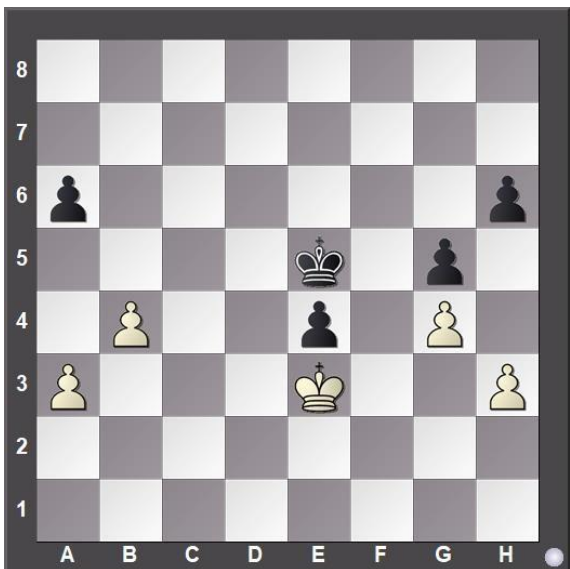
With the best play, what is the outcome of the game?

a) White wins
b) Black wins
c) Draw
d) It depends on whose move it is.

#8. Black to move
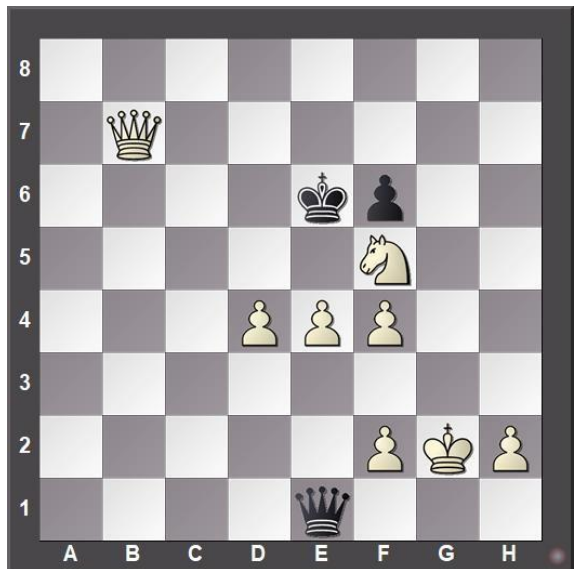
All moves can make a draw, except?

a) ♛f2
b) ♛e3
c) ♛f1
d) ♛g1

#9. White to move
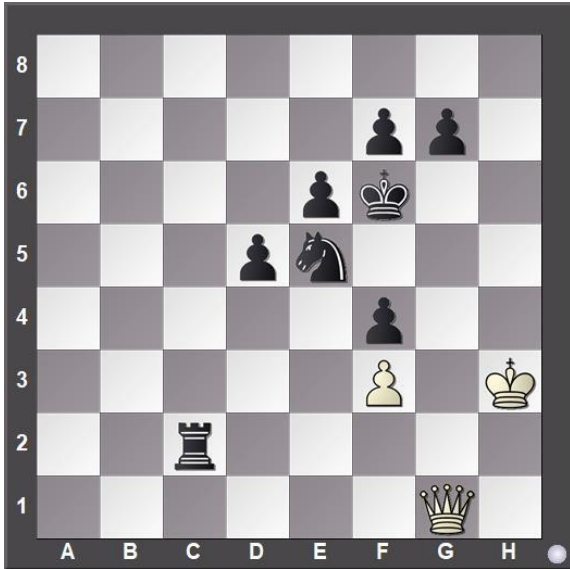
What is White's best move?

a) ♕g5
b) ♕×g7
c) ♕d4
d) ♔h4

#10. White to move

What is White's best move?

a) ♖×h6
b) ♕g4
c) ♕g5
d) ♖×f2

#11. White to move

What is White's best move?

a) ♘g7
b) ♕f8
c) ♕×f6
d) ♘f8

#12. White to move

If White can checkmate Black, how many moves does White need?

a) 1 move
b) 2 moves
c) 3 moves
d) 4 moves

#13. White to move

What is White's best move?

a) ♖×c8
b) ♘×d7
c) ♘g6
d) ♕e8

#14. Black to move

If Black can checkmate White, how many moves does Black need?

a) 1 move
b) 2 moves
c) 3 moves
d) 4 moves

#15. White to move
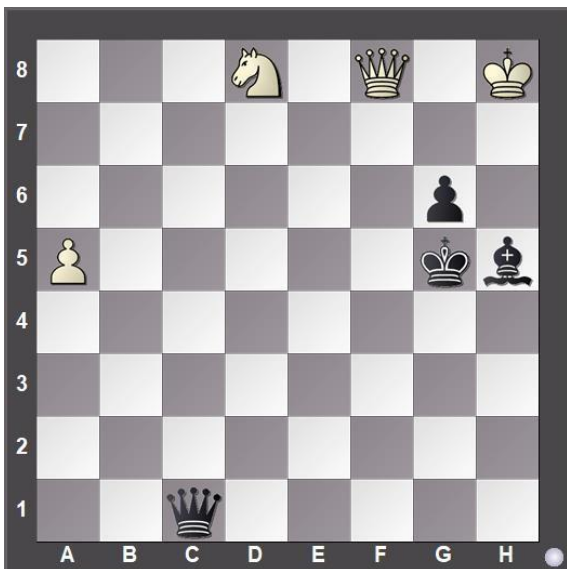
What is White's best move?

a) ♕c5
b) ♕h6
c) ♘f7
d) ♕f6

#16. White to move
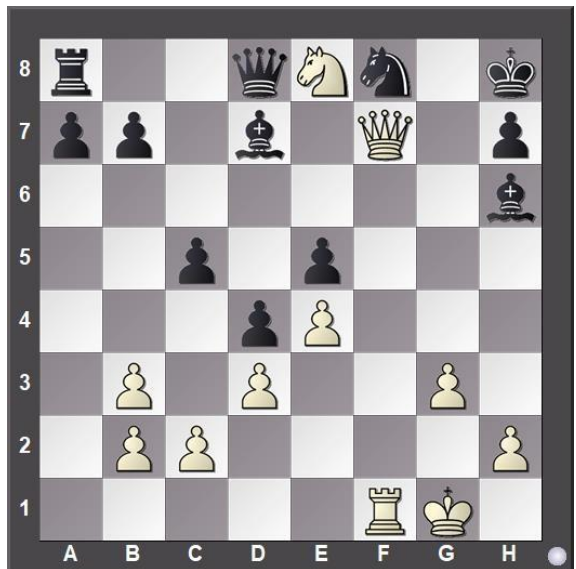
If White can checkmate Black in two moves, what's the *first* move?

a) ♕×f8
b) ♕×h7
c) ♕g7
d) ♘f6

#17. White to move
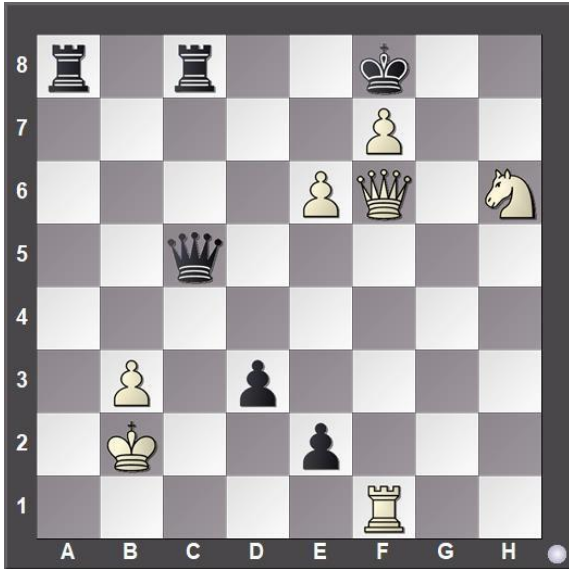
If White can checkmate Black in two moves, what's the *first* move?

a) ♕h8
b) ♕e7
c) ♕g7
d) e7

_____

#18.
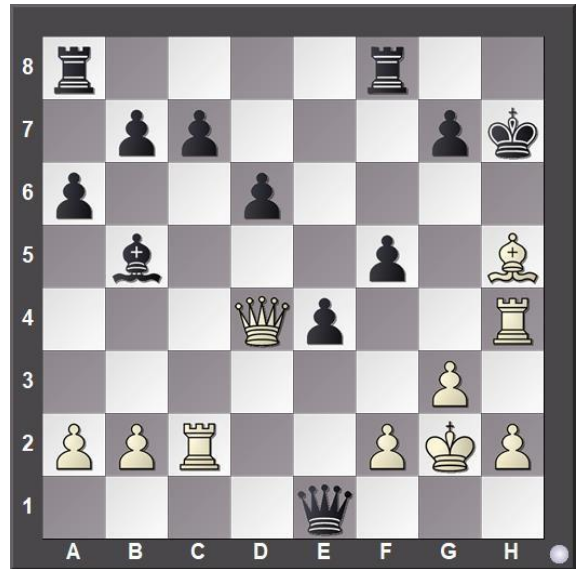
With the best play, what is the outcome of the game?

a) Black wins.
b) White wins.
c) It is a draw.
d) It depends on whose move it is.

_____

#19. Black to move
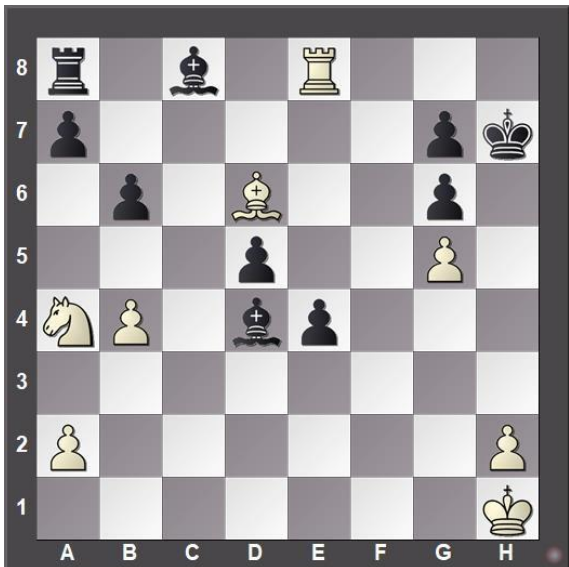
What is Black's best move?

a) ♗a6
b) ♗b7
c) ♗d7
d) ♗g4

#20. Black to move

If Black can checkmate White in three moves, what's the *second* move?

a) ♕×e2
b) ♕×g3
c) ♘f6
d) d×e

University Interscholastic League
A+ Chess Puzzle Contest
2023-2024 Fall/Winter — Grades 6, 7, and 8
ANSWER KEY

Test

1.	C		11.	B
2.	A		12.	C
3.	D		13.	A
4.	B		14.	C
5.	C		15.	B
6.	D		16.	A
7.	A		17.	D
8.	B		18.	D
9.	A		19.	D
10.	C		20.	A

Tiebreaker

1.	B		5.	D
2.	C		6.	C
3.	D		7.	C
4.	B		8.	C

A+ ACADEMICS

University Interscholastic League

Chess Puzzle Solving

TIEBREAKER - ALL GRADES

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

IMPORTANT INSTRUCTIONS:

This is the <u>tiebreaker</u> test for all grades for the Spring District UIL Chess Puzzle Solving Test.

Use the separate answer sheet to write all your answers. You have five (5) minutes to take this part of the test. There are eight (8) questions. Some questions are very difficult.

As before, the symbols for check and checkmate commonly used after moves have been omitted because they would be hints.

Each correct answer earns you one point. There is no penalty for incorrect answers or unanswered questions.

These questions are hard, but the puzzles are interesting! Good luck and have fun!

#1. White to move

What is White's best move?

a) ♖c6
b) ♖b5
c) b7
d) ♔c6

#2. White to move
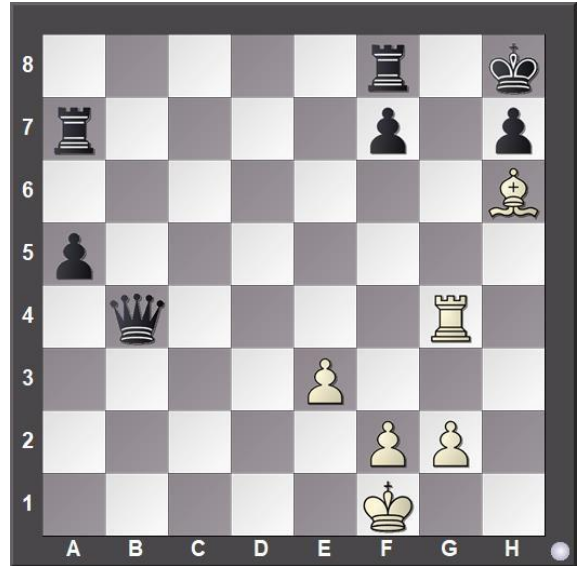
If White can checkmate Black in two moves, what is the *second* move?

a) ♗f6
b) ♗e5
c) ♗d4
d) All of the above

#3. White to move
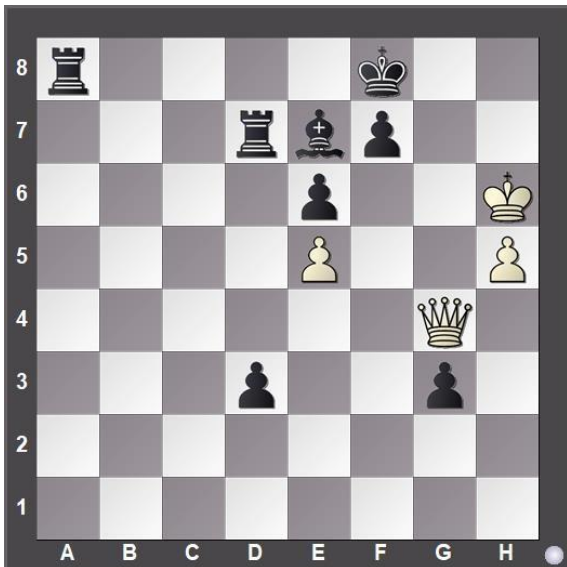
What is White's best move

a) ♕g3
b) ♔h7
c) ♕g7
d) ♕g8

#4. Black to move
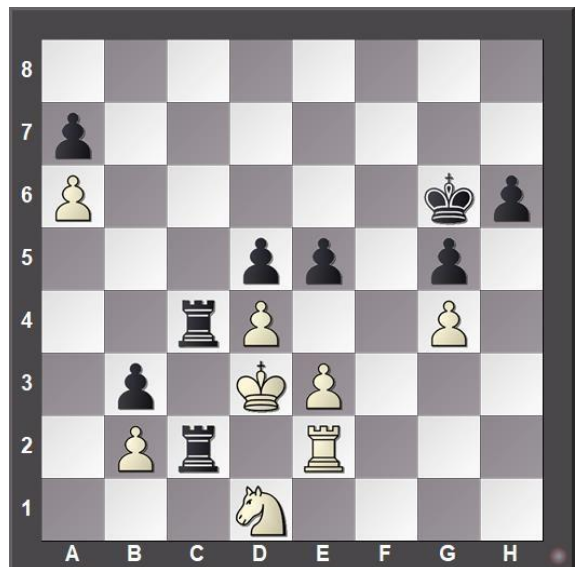
With the best play, what is the outcome of the game?

a) White wins
b) Black wins
c) Draw
d) Impossible to tell

#5. White to move

#6. White to move

What is White's best move?
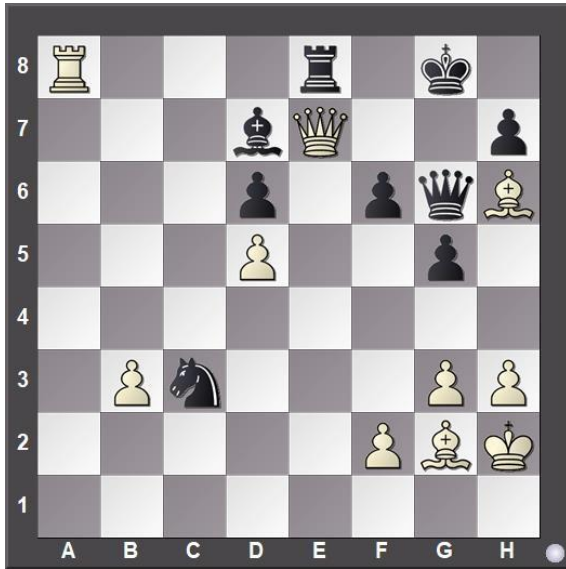
What is White's best move?

a) ♕×e8
b) ♖c8
c) ♕g7
d) ♕f8
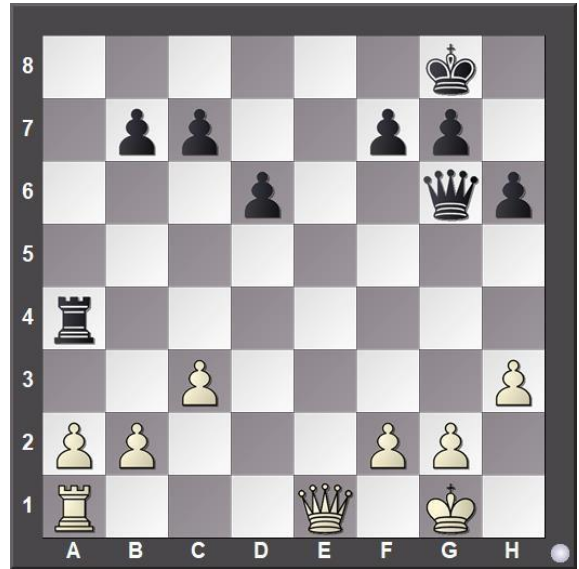
a) ♖d1
b) ♕e7
c) ♕e8
d) g3

#7. Black to move
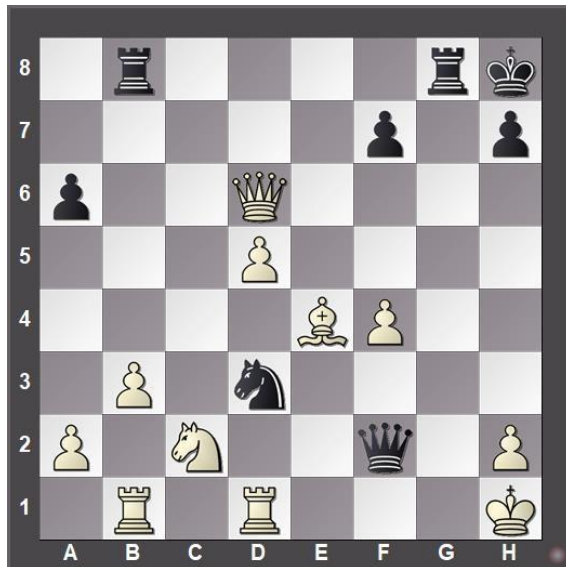
#8. White to move

What is Black's best move?
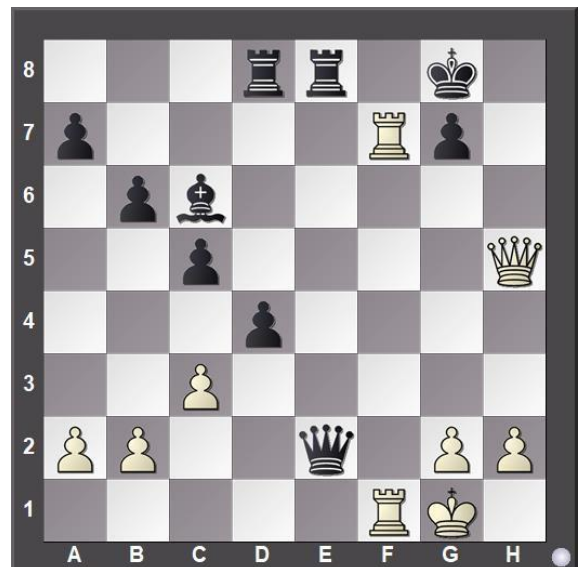
If White can force checkmate in three moves, what is White's *second* move?

a) ♖g1
b) ♕g2
c) ♕g1
d) ♕×h2

a) ♖×g7
b) ♕h8
c) ♖f7
d) ♕f7

A+ ACADEMICS

![UIL logo]

University Interscholastic League
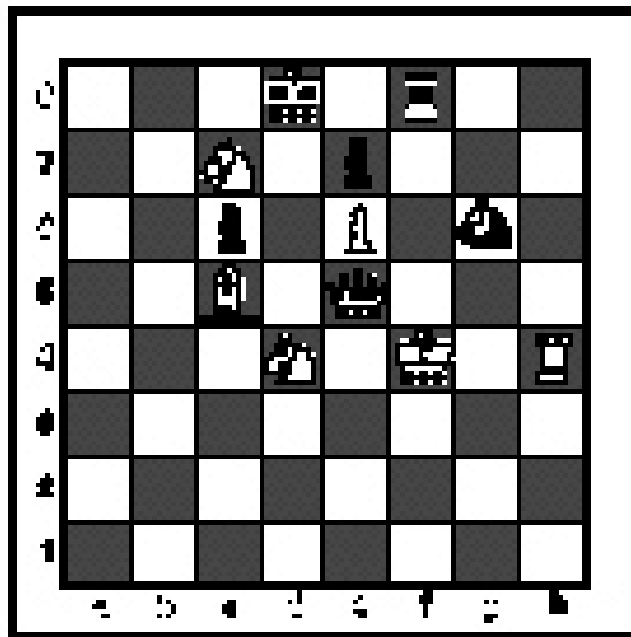
Chess Puzzle Solving
grades 2 & 3

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

IMPORTANT INSTRUCTIONS:
[Test-administrators, please read text in this box aloud.]

This is the UIL Chess Puzzle Solving Invitational Test for grades two through three. There are 20 questions on this test. You have 30 minutes to complete it. All questions are multiple choice. Use the answer sheet to mark your answers. Multiple choice answers purposely do not indicate check, checkmate, or e.p. symbols. You will be awarded one point for each correct answer. No deductions will be made for incorrect answers on this test. Finishing early is not rewarded, even to break ties. So use all of your time. Some of the questions may be hard, but all of the puzzles are interesting! Good luck and have fun!

If you don't already know chess notation, reading and referring to the section below on this page will help you.

How to read and answer questions on this test

• To answer the questions on this test, you'll need to know how to read chess moves. It's simple to do.

• Every square on the board has an "address" made up of a letter and a number.

Piece Names	Each chessman can also be represented by a symbol, except for the pawn. (Figurine Notation)
King	♔
Queen	♕
Rook	♖
Bishop	♗
Knight	♘
Pawn	**a-h** (We write the file it's on.)

• To make them easy to read, the questions on this test use the figurine piece symbols on the right, above.

• When answering the puzzle questions, remember that white pawns move "up" the diagrams. Black pawns move "down" the diagrams.

At right are two sample moves.

If you look closely at the diagrams in the questions below, you'll see that the frame around the diagram labels the ranks (1-8) and files (a-h) to help you.

White has just played **e4**.   Black has just played ... **Nf6**.

#1. Black to move

What term best describes this situation?

a) Black is in checkmate.
b) Black is in stalemate.
c) Black is in check.
d) None of the above.

#2. Black to move

What term best describes this situation?

a) Black is in checkmate.
b) Black is in stalemate.
c) Black is in check.
d) None of the above.

#3. Black to move

What term best describes this situation?

a) Black is in check.
b) Black is in stalemate.
c) Black is in checkmate.
d) None of the above.

#4.

Which side has material advantage?

a) White
b) Black
c) It's even
d) It's not possible to tell

#5. White to move

Black just played c7 to c5. Which pawn can be captured?

a) Black's c-pawn
b) Black's e-pawn
c) Black's f-pawn
d) White can't capture a pawn.

#6. White to move

Which move is possible for White?

a) Short Castle
b) Long Castle
c) Take Black's Queen
d) Take Black's Bishop

#7. White to move
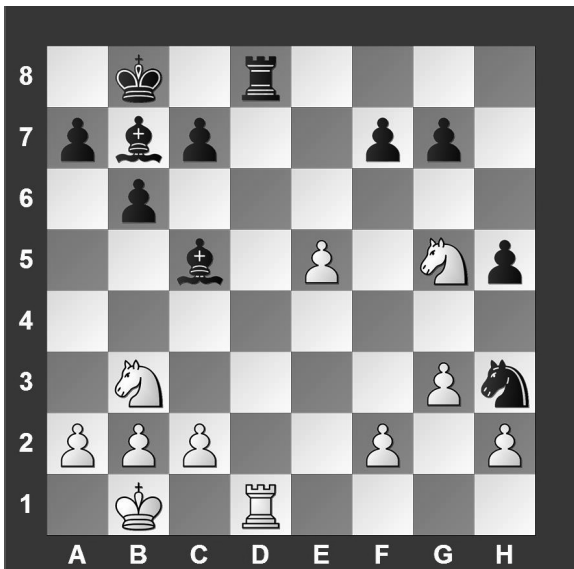
What piece should White capture?

a) Black's Knight
b) Black's Pawn
c) Black's Bishop
d) Black's Rook

#8. White to move
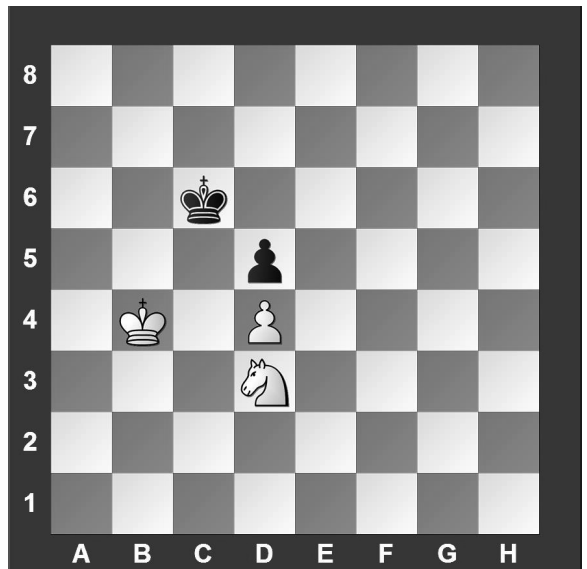
With the best moves, what is the outcome of the game?

a) White wins
b) Black wins
c) Draw
d) It is impossible to tell

#9. White to move
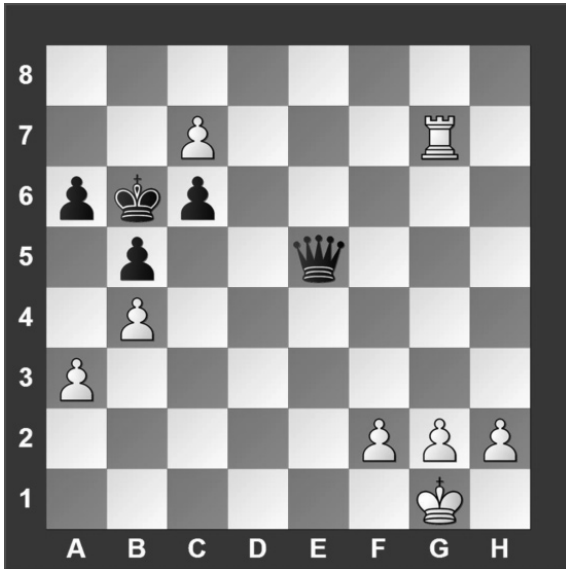
What piece should White promote to?

a) Queen
b) Rook
c) Knight
d) Bishop

#10. White to move
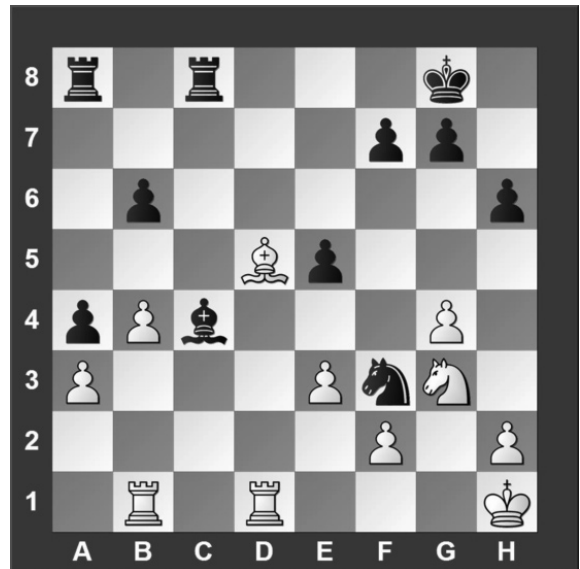
What piece should White capture?

a) Black's Bishop
b) Black's Knight
c) Black's Rook
d) Black's Pawn

#11. White to move

What is White's best move?

a) ♖×c5
b) ♘e7
c) ♕×g6
d) ♘h6

#12. White to move
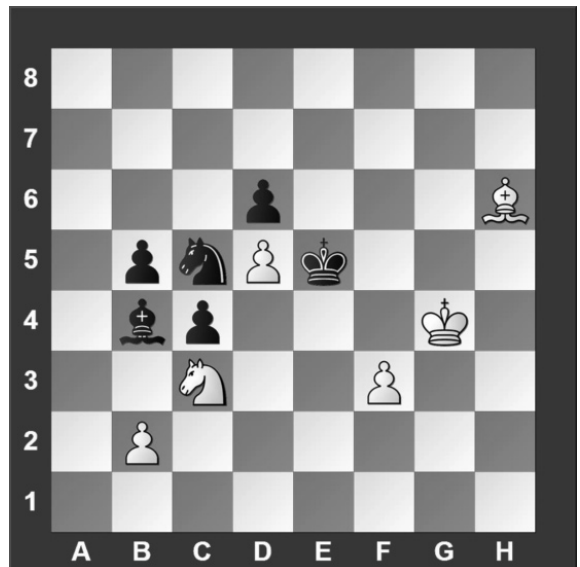
What is White's best move?

a) ♘×b5
b) f4
c) ♗g7
d) ♗f4

#13. White to move
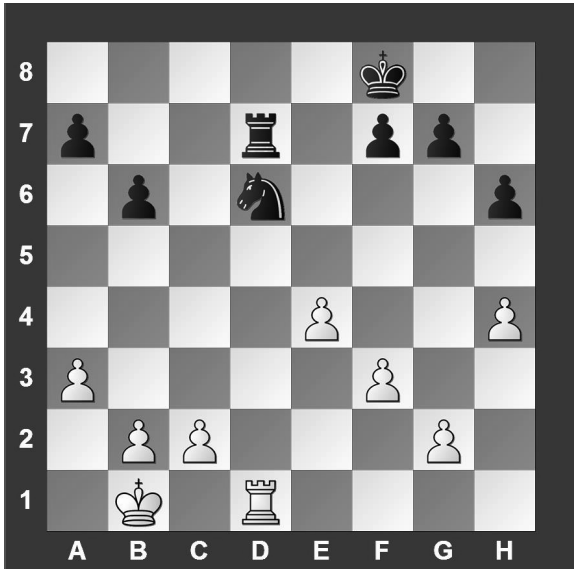
What is White's best move?

a) ♖d5
b) c4
c) ♖×d6
d) e5

#14. White to move
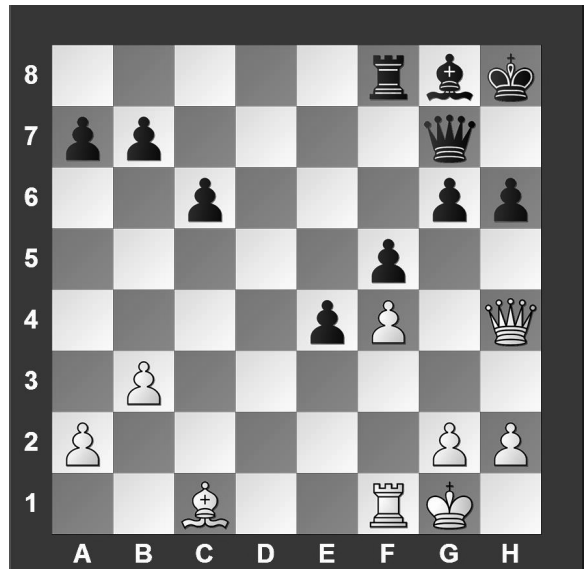
What is White's best move?

a) ♗b2
b) ♛×h6
c) ♖d1
d) ♛f2

#15. White to move
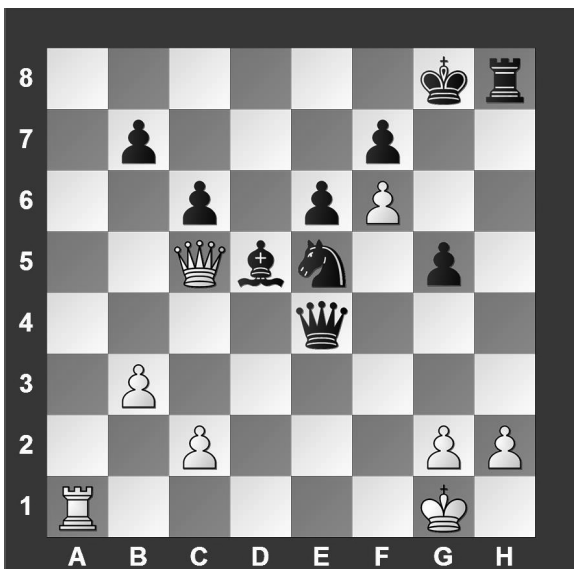
What is White's best move?

a) c4
b) ♛f2
c) ♖a8
d) ♛f8

#16. White to move
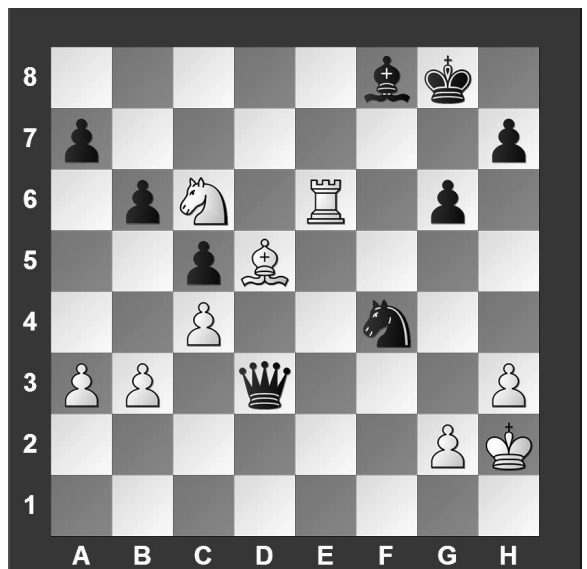
If White can checkmate Black in two moves, what is White's first move?

a) ♘e7
b) ♖×g6
c) ♖e8
d) ♖e3

University Interscholastic League
A+ Chess Puzzle Contest
2023-2024 Spring — Grades 2 & 3

ANSWER KEY

Test

1.	B		9.	C
2.	A		10.	B
3.	A		11.	D
4.	A		12.	C
5.	A		13.	D
6.	D		14.	A
7.	D		15.	D
8.	A		16.	B

Tiebreaker

1.	B		5.	B
2.	A		6.	C
3.	C		7.	A
4.	D		8.	C

A+ ACADEMICS

University Interscholastic League
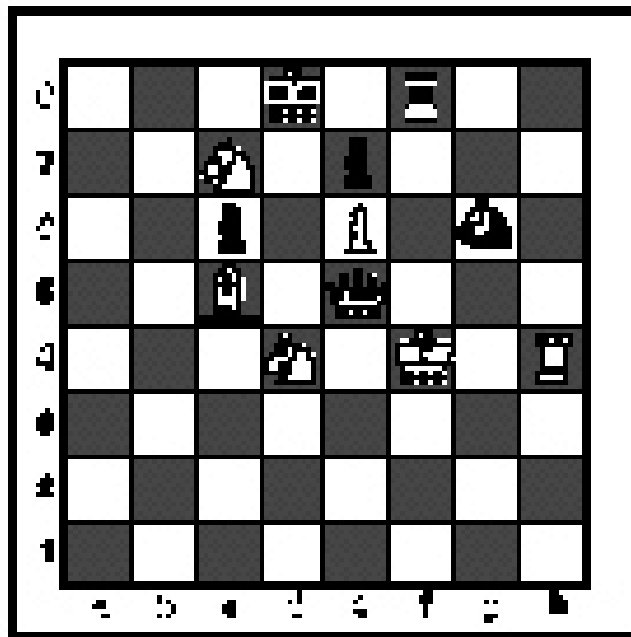
Chess Puzzle Solving
grades 4 & 5

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

IMPORTANT INSTRUCTIONS:
[Test-administrators, please read text in this box aloud.]

This is the UIL Chess Puzzle Solving Invitational Test for grades four through five. There are 20 questions on this test. You have 30 minutes to complete it. All questions are multiple choice. Use the answer sheet to mark your answers. Multiple choice answers purposely do not indicate check, checkmate, or e.p. symbols. You will be awarded one point for each correct answer. No deductions will be made for incorrect answers on this test. Finishing early is not rewarded, even to break ties. So use all of your time. Some of the questions may be hard, but all of the puzzles are interesting! Good luck and have fun!

If you don't already know chess notation, reading and referring to the section below on this page will help you.

How to read and answer questions on this test

• To answer the questions on this test, you'll need to know how to read chess moves. It's simple to do.

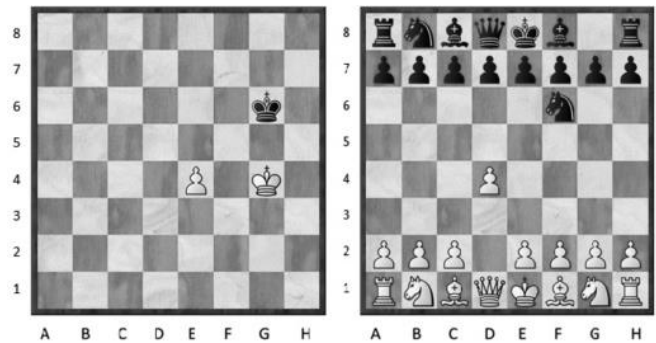• Every square on the board has an "address" made up of a letter and a number.

Piece Names	Each chessman can also be represented by a symbol, except for the pawn. (Figurine Notation)
King	♔
Queen	♕
Rook	♖
Bishop	♗
Knight	♘
Pawn	**a-h** (We write the file it's on.)

• To make them easy to read, the questions on this test use the figurine piece symbols on the right, above.

• When answering the puzzle questions, remember that white pawns move "up" the diagrams. Black pawns move "down" the diagrams.

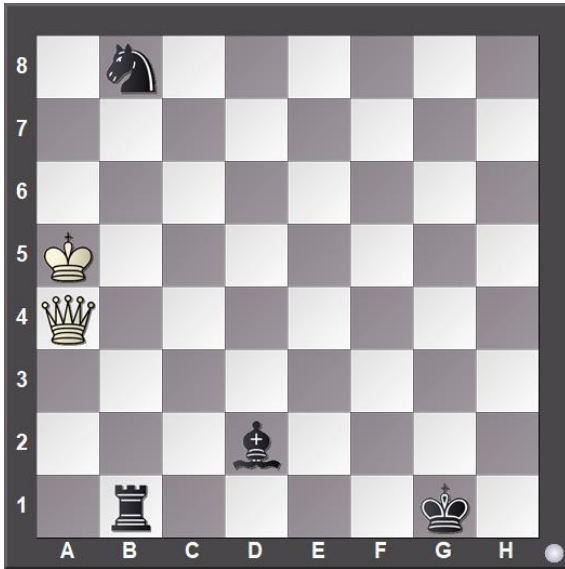**At right are two sample moves.**

If you look closely at the diagrams in the questions below, you'll see that the frame around the diagram labels the ranks (1-8) and files (a-h) to help you.

White has just played **e4**.   Black has just played ... **Nf6**.

#1. Black to move

What term best describes this situation?

a) Black is in checkmate
b) Black is in stalemate
c) Black is in check
d) None of the above

#2. Black to move

What term best describes this situation?

a) Black is in checkmate
b) Black is in stalemate
c) Black is in check
d) None of the above

#3 Black to move.

What term best describes this situation?

a) Black is in checkmate
b) Black is in stalemate
c) Black is in check
d) None of the above

#4.

Which side has material advantage?

a) White
b) Black
c) It's even
d) It's not possible to tell

#5. White to move

Which move below is possible for White?

a) Short Castle
b) Long Castle
c) Take Black's Knight
d) Take Black's Queen

#6. White to move
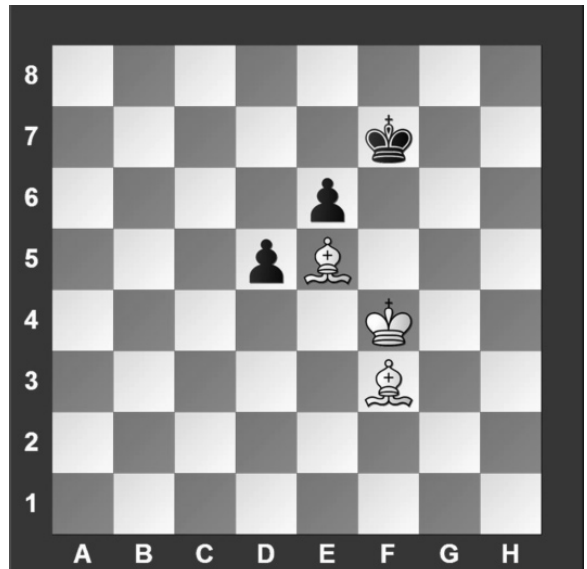
With the best moves, what is the outcome of the game?
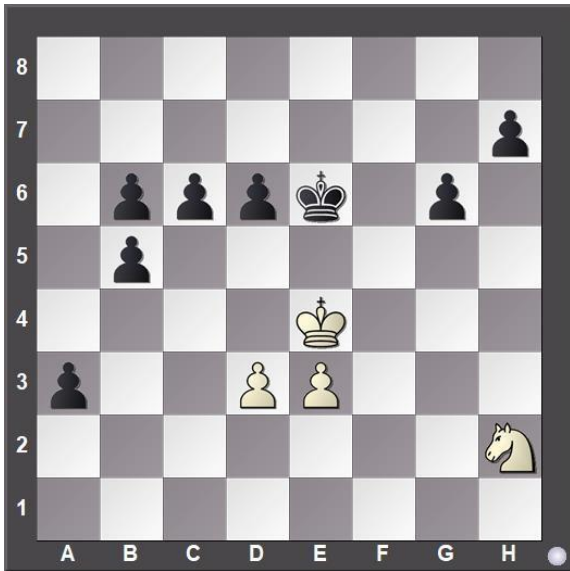
a) Black wins.
b) White wins.
c) Draw.
d) It is impossible to tell.
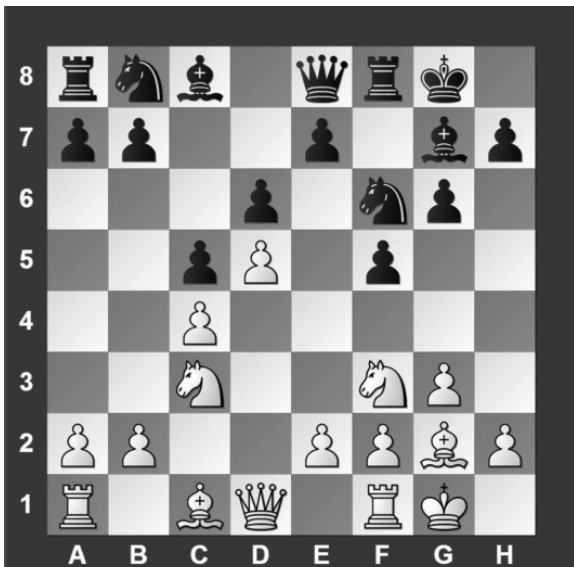
#7. White to move

Black just played c7 to c5. Which pawn can be captured?

a) Black's e-pawn
b) Black's f-pawn
c) Black's c-pawn
d) White can't capture a pawn
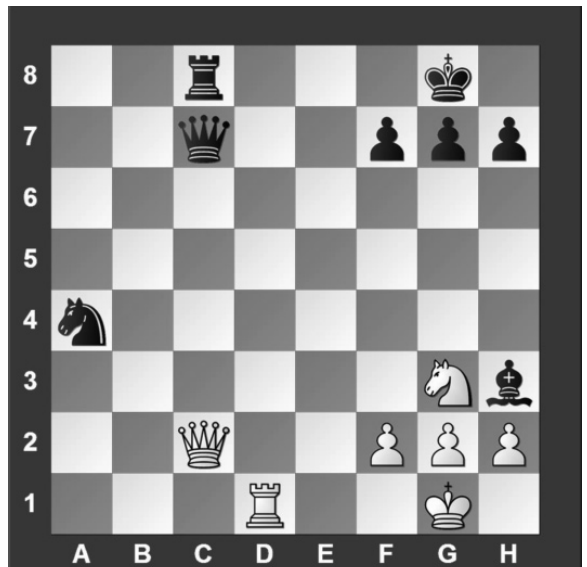
#8. White to move

What piece should White capture?

a) Queen
b) Knight
c) Bishop
d) Pawn

#9. White to move

What is White's best move?

a) ♗f6
b) ♕g7
c) ♕×d5
d) ♘×f4
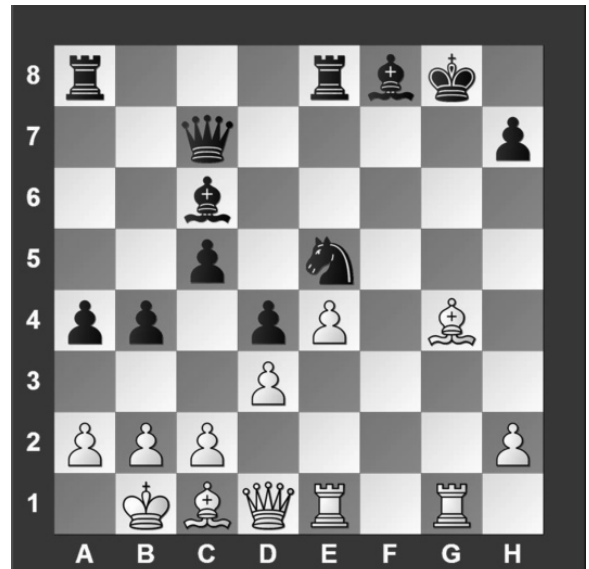
#10. White to move

What is White's best move?

a) ♗h5
b) ♗d7
c) ♗e6
d) ♕f3

#11. White to move

What is White's best move?

a) ♘c6
b) ♗×a6
c) ♗g5
d) ♖d1
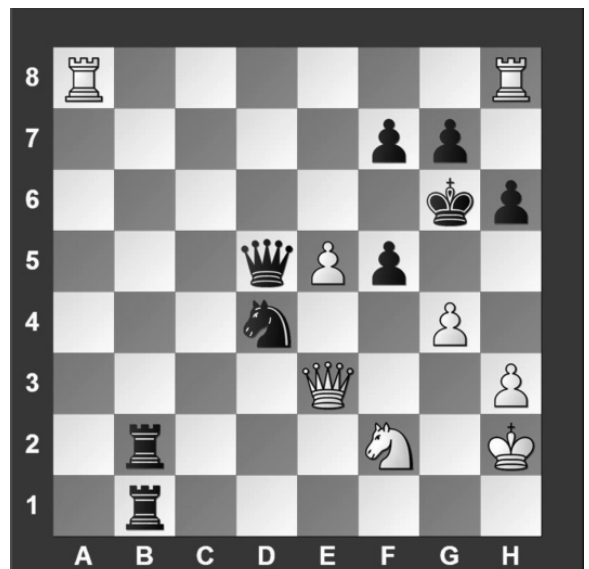
#12. White to move

What is White's best move?

a) ♕×h6
b) ♖×h6
c) g×f5
d) ♖a6

#13. White to move

What is White's best move?

a) ♘×a8
b) ♕×h6
c) ♕×d7
d) ♗g4

#14. White to move

What is White's best move?

a) ♖×d8
b) ♗×h7
c) ♘g5
d) ♕c2

#15. White to move
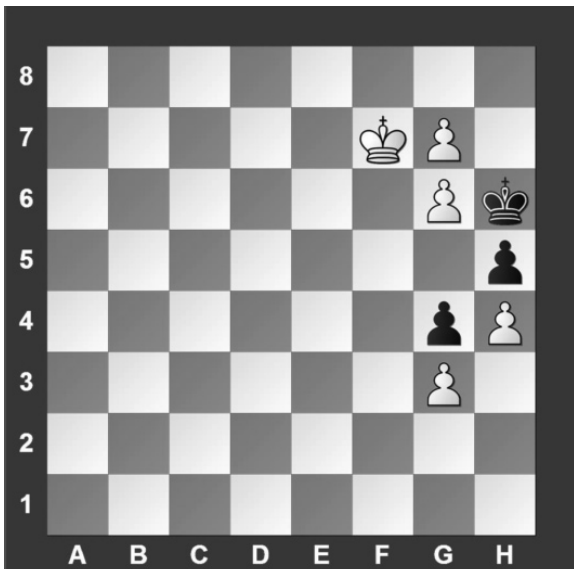
What piece should White promote to?

a) Queen
b) Rook
c) Bishop
d) Knight

#16. White to move

What is White's best move?

a) ♖×e8
b) ♗d4
c) ♖e1
d) f4

#17. White to move
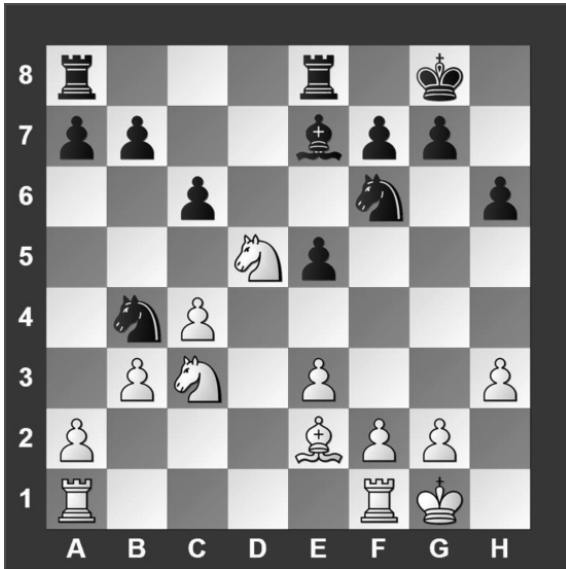
What is White's best move?
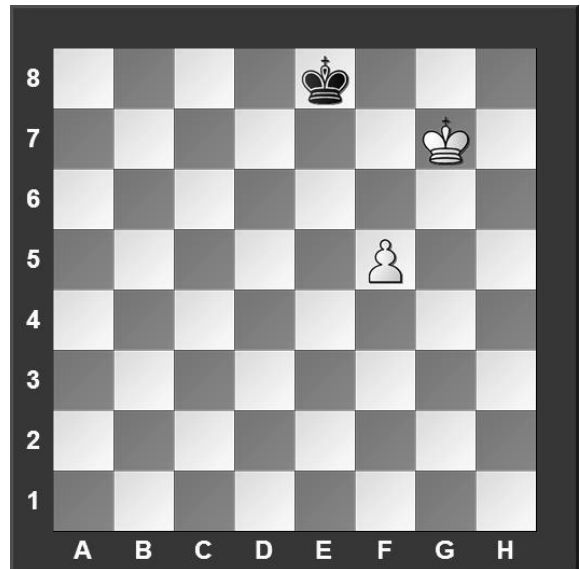
a) ♘×b4
b) ♘×f6
c) ♘×e7
d) ♘c7

#18. White to move

With the best moves, what is the outcome of the game?

a) White wins.
b) Black wins.
c) It is a draw.
d) It is not possible to tell.

#19. White to move

What is White's best move?

a) ♕×b7
b) ♕×f5
c) d5
d) g4

#20. White to move
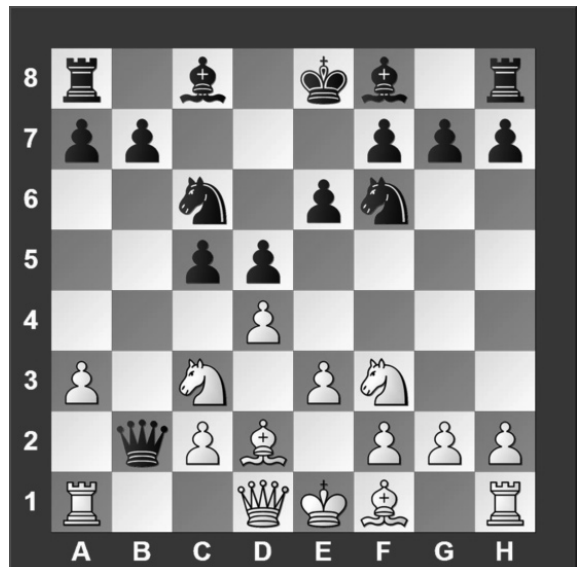
What is White's best move?

a) ♖a2
b) ♖b1
c) ♘b5
d) ♘a4

University Interscholastic League
A+ Chess Puzzle Contest
2023-2024 Spring — Grades 4 & 5

ANSWER KEY

Test

1.	B		11.	C
2.	A		12.	A
3.	C		13.	C
4.	B		14.	B
5.	C		15.	D
6.	B		16.	B
7.	C		17.	D
8.	A		18.	A
9.	A		19.	B
10.	C		20.	D

Tiebreaker

1.	B		5.	B
2.	A		6.	C
3.	C		7.	A
4.	D		8.	C

UIL

University Interscholastic League
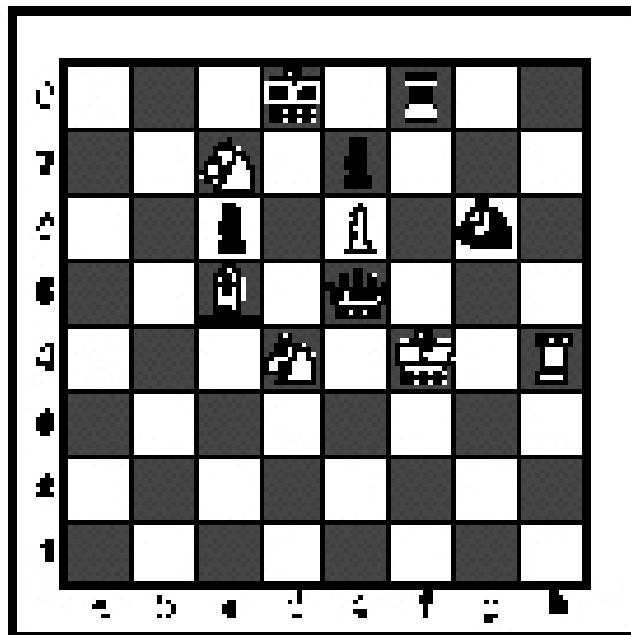
Chess Puzzle Solving
grades 6, 7, 8

DO NOT OPEN TEST
UNTIL TOLD TO DO SO

IMPORTANT INSTRUCTIONS:
[Test-administrators, please read text in this box aloud.]

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Piece Names

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(Figurine Notation)

Piece	Symbol
King	♔
Queen	♕
Rook	♖
Bishop	♗
Knight	♘
Pawn	**a-h** (We write the file it's on.)

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• When answering the puzzle questions, remember that white pawns move "up" the diagrams. Black pawns move "down" the diagrams.

At right are two sample moves.

If you look closely at the diagrams in the questions below, you'll see that the frame around the diagram labels the ranks (1-8) and files (a-h) to help you.

White has just played **e4**.　　Black has just played ... **Nf6**.

#1. Black to move

What term best describes this situation?

a) Black is in checkmate.
b) Black is in stalemate.
c) Black is in check.
d) None of the above.

#2. Black to move

What term best describes this situation?

a) Black is in checkmate.
b) Black is in stalemate.
c) Black is in check.
d) None of the above.

#3. Black to move

What term best describes this situation?

a) Black is in checkmate.
b) Black is in stalemate.
c) Black is in check.
d) None of the above.

#4.

Which side has material advantage?

a) White
b) It is even.
c) Black
d) It is not possible to tell.

#5. White to move

Which move is possible for White?

a) Short Castle
b) Long Castle
c) Take Black's Bishop
d) Take Black's Pawn

#6. White to move
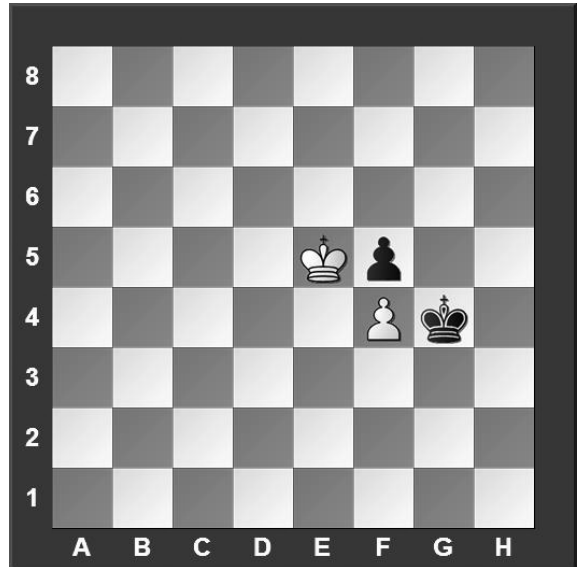
With the best moves, what is the outcome of the game?

a) White wins.
b) Black wins.
c) Draw.
d) It is impossible to tell.
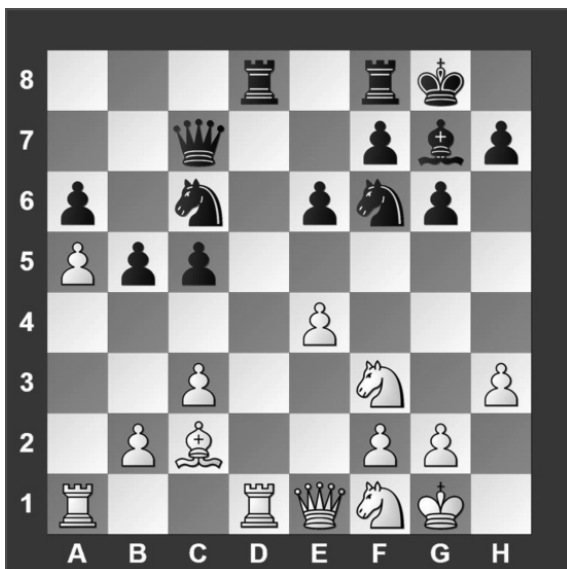
#7. White to move

Black just played b7 to b5. Which pawn can be captured?

a) Black's a-pawn.
b) Black's b-pawn.
c) Black's g-pawn.
d) White can't capture a pawn.
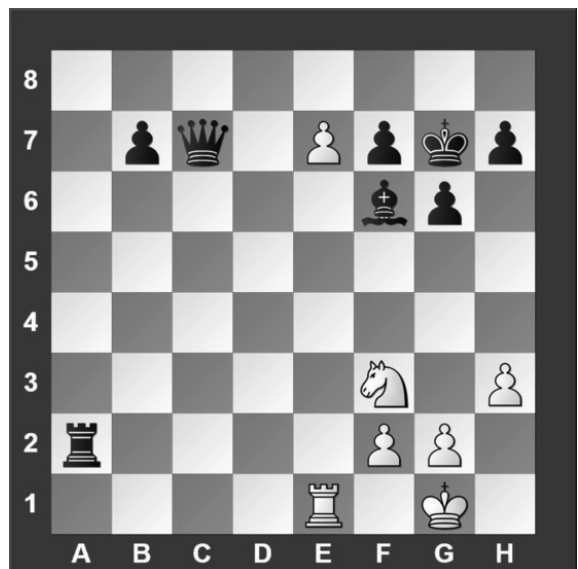
#8. White to move

What piece should White promote to?

a) Queen
b) Rook
c) Bishop
d) Knight

#9. White to move

What is White's best move?

a) ♘h4
b) ♖h2
c) ♖g1
d) ♗×a6
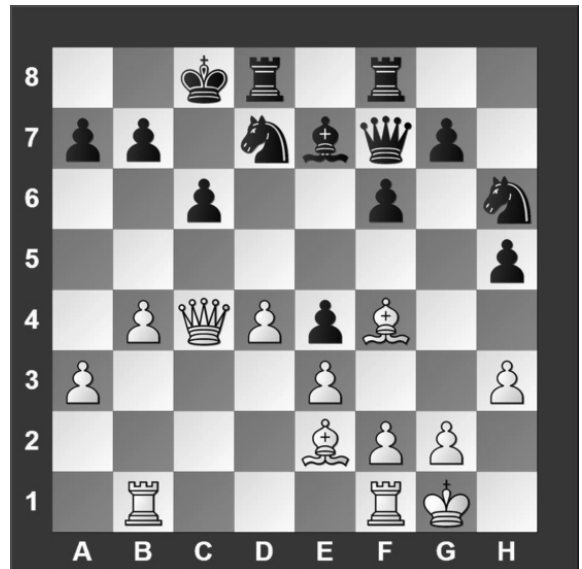
#10. White to move

White can checkmate Black in two moves, what is White's *first* move?

a) ♕×c6
b) b5
c) ♕×f7
d) d5

#11. White to move
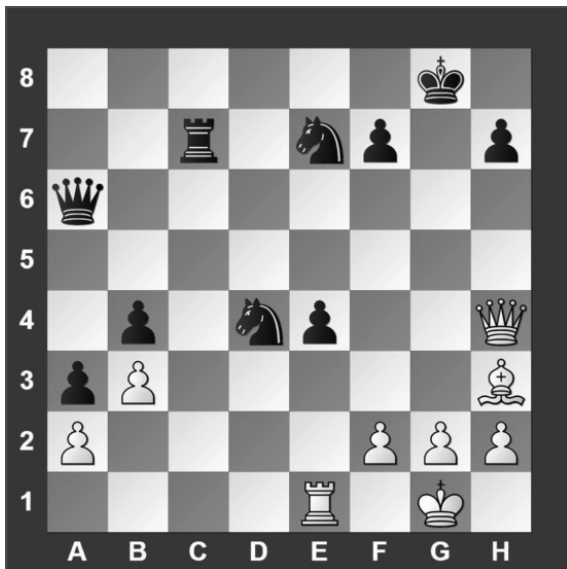
What is White's best move?

a) ♖×e4
b) ♕×e4
c) ♕g3
d) ♕g5

#12. White to move
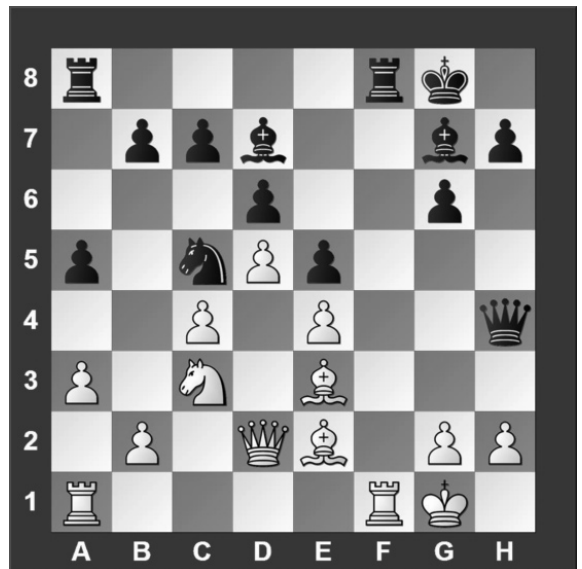
What is White's best move?

a) ♗×c5
b) ♗g5
c) ♖×f8
d) g3

#13. White to move

What is White's best move?

a) ♕×c3
b) ♖c1
c) ♘e6
d) ♘f7

#14. White to move
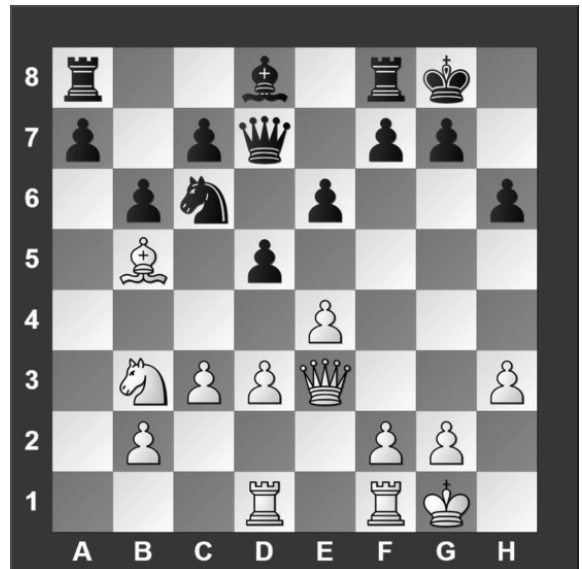
What is White's best move?

a) ♗×c6
b) e×d5
c) ♘d4
d) f4

#15. White to move

If White can checkmate Black in three moves, what's White's *second* move?

a) ♖h1
b) ♕×h7
c) ♘g6
d) e5

#16. White to move

If White can checkmate Black in two moves, what's White's *first* move?

a) ♗g6
b) ♖d8
c) ♗×c8
d) ♗×h7

#17. White to move

What is White's best move?

a) ♖h5
b) ♖h3
c) ♖×g6
d) ♗h5

#18. White to move

What is White's best move?

a) ♕×b7
b) ♕×e6
c) ♖h3
d) ♕c3

#19. White to move

If White can checkmate Black in two moves, what's the *first* move?

a) ♕f6
b) ♗×e5
c) ♕×g8
d) ♕c8

#20. White to move
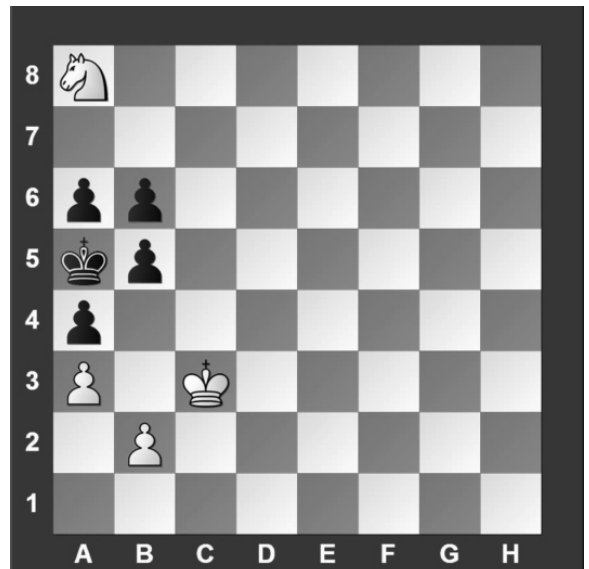
With the best play, how many moves will it take White to checkmate Black?

a) 1
b) 2
c) 3
d) 4

University Interscholastic League
A+ Chess Puzzle Contest
2023-2024 Spring — Grades 6-8

ANSWER KEY

Test

1.	C		11.	C
2.	A		12.	B
3.	B		13.	D
4.	C		14.	C
5.	A		15.	A
6.	B		16.	A
7.	B		17.	C
8.	D		18.	B
9.	B		19.	A
10.	A		20.	B

Tiebreaker

1.	B		5.	B
2.	A		6.	C
3.	C		7.	A
4.	D		8.	C

A+ ACADEMICS

University Interscholastic League
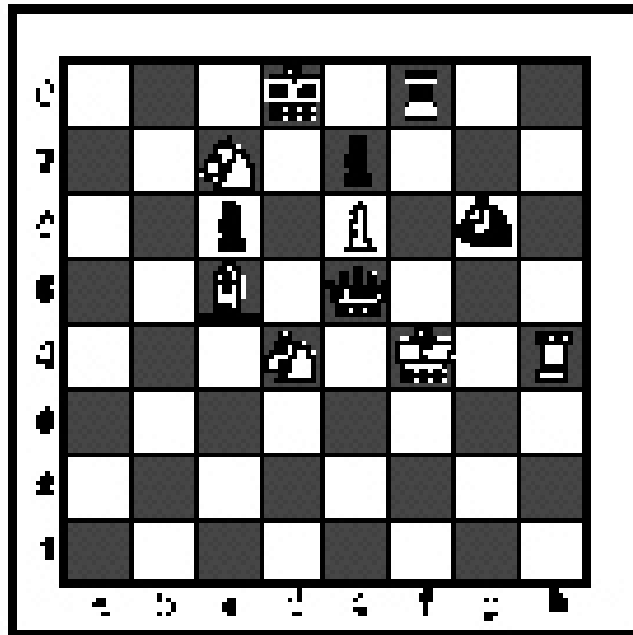
Chess Puzzle Solving

TIEBREAKER - ALL GRADES

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

IMPORTANT INSTRUCTIONS:

This is the <u>tiebreaker</u> test for all grades for the Invitational UIL Chess Puzzle Solving Test.

Use the separate answer sheet to write all your answers. You have five (5) minutes to take this part of the test. There are eight (8) questions. Some questions are very difficult.

As before, the symbols for check and checkmate commonly used after moves have been omitted because they would be hints.

Each correct answer earns you one point. There is no penalty for incorrect answers or unanswered questions.

These questions are hard, but the puzzles are interesting! Good luck and have fun!
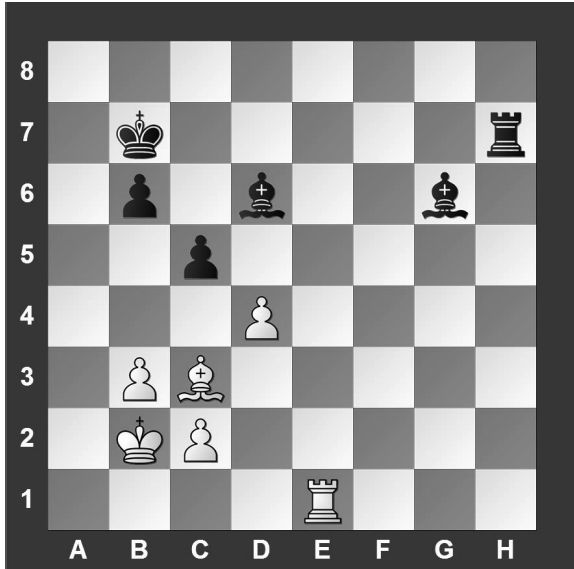
#1. White to move

What is White's best move?

a) d×c5
b) ♖e6
c) ♖g1
d) d5

#2. White to move
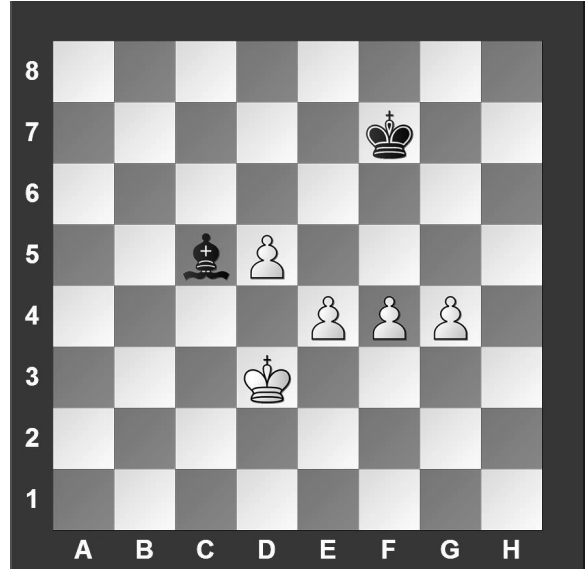
What should be the outcome of the game?

a) White wins.
b) Black wins.
c) Draw.
d) It is not possible to tell.

#3. White to move
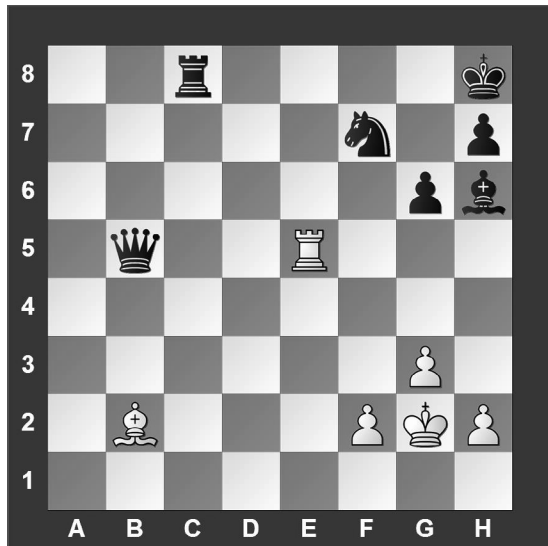
What is White's best move?

a) ♖×b5
b) ♖h5
c) ♖e8
d) ♖c5

#4. White to move

What is White's best move?

a) ♔e7
b) ♔f5
c) ♘×g8
d) ♘f7

#5. White to move

What is White's best move?

a) ♖d7
b) ♘c4
c) f×e5
d) ♘d3

#6. White to move
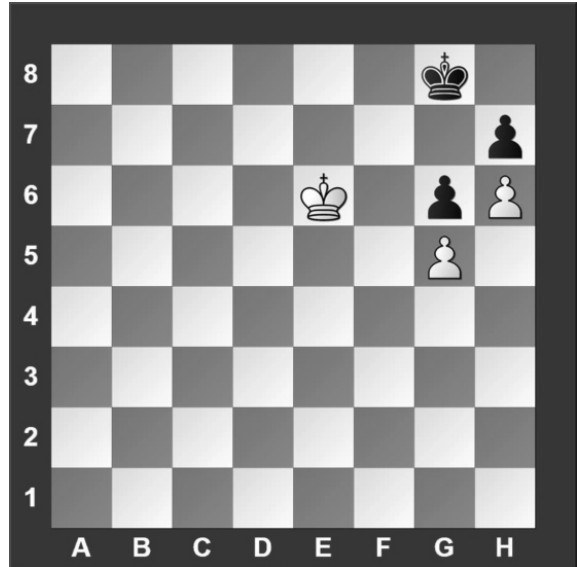
With the best play, what is the outcome of the game?

a) White wins
b) Black wins
c) It is a draw
d) It is not possible to tell

#7. White to move
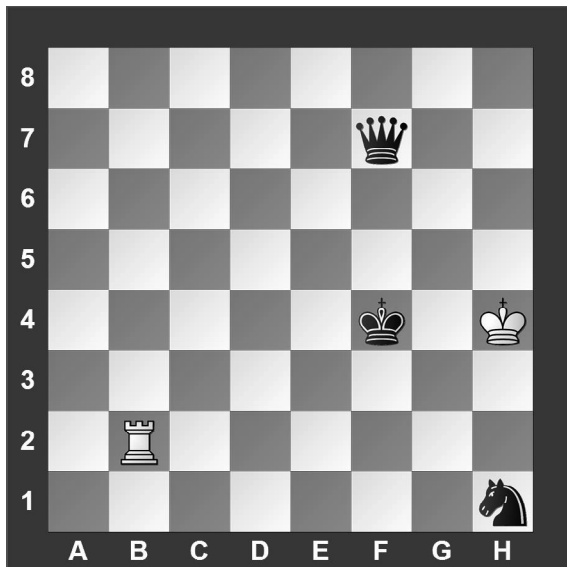
What is White's best move?

a) ♖f2
b) ♖b4
c) ♔h3
d) ♖b1

#8. White to move
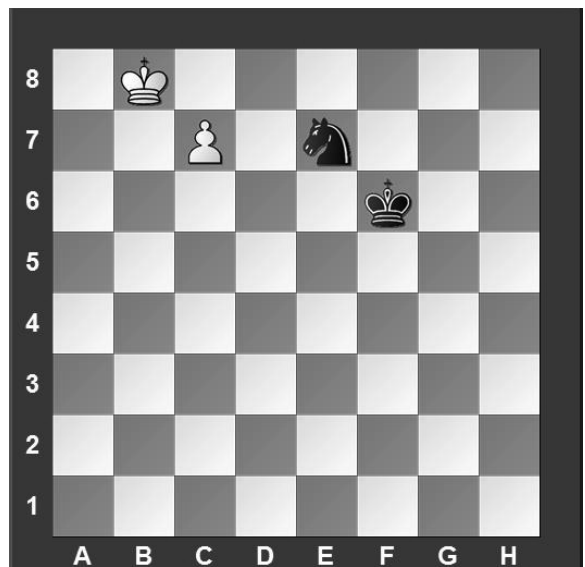
With the best play, what is the outcome of the game?

a) White wins
b) Black wins
c) It is a draw
d) It is not possible to tell

UIL A+ Creative Writing Evaluation Sheet
Elementary

Evaluation criteria are listed in the order of importance. Circle score rating in each of the three major areas of *creativity & interest*, *organization*, and *correctness of style* and tally the points.

(60%) 1 2 3 4 5 6 7 8 9 10 11 12

CREATIVITY & INTEREST Interest depends primarily upon substance. It depends next upon clarity and upon including specific details and examples, which individualize the story as an outgrowth of the writer's character and experience.

(30%) 1 2 3 4 5 6

Organization A well-organized story will present ideas in a logical and coherent manner.

(10%) 1 2

Correctness of Style Grammatical correctness of style includes avoiding errors in sentence structure, punctuation, grammar, spelling and word usage.

TOTAL SCORE: _____/20

_____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____

CONSTRUCTIVE COMMENTS FOR THE CONTESTANT

Please read "Instructions for the Judges" before evaluating second grade Creative Writing contestants' papers. Please make your comments using language understandable to the contestant and make all comments constructive and supportive. While judges are to consider all three elements in selecting the most effective compositions, they should weigh creativity and interest more than organization, and organization more than correctness of style.

Judge's signature _____

A+ Creative Writing Contest

Write a story on your own paper. You must write about at least one of the things shown on this page. You may use as many of the pictures as you want.
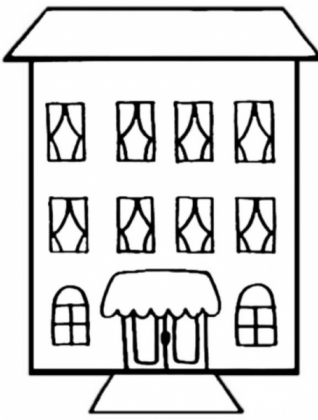
hotel
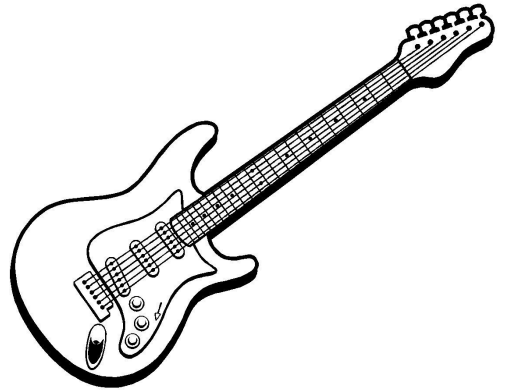
bass guitar
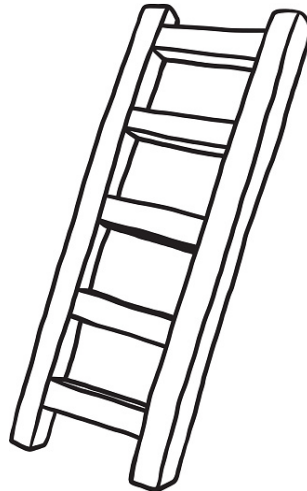
ladder
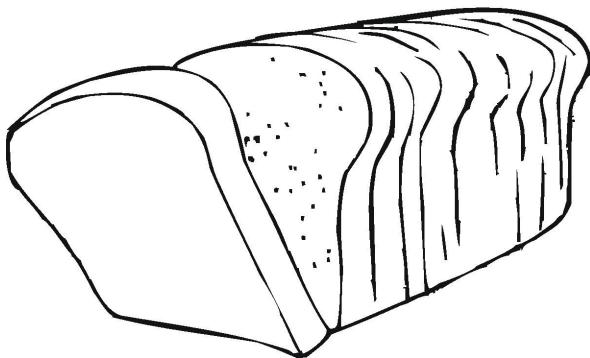
bread
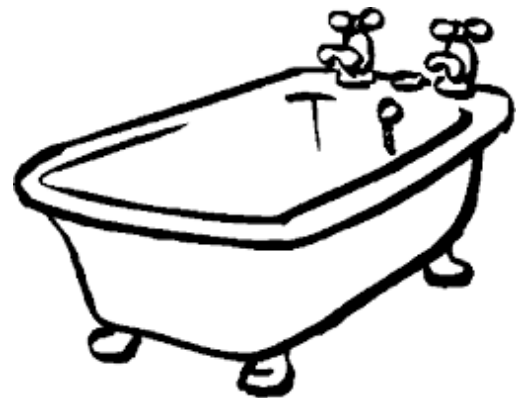
bathtub

A+ Creative Writing Contest

FALL/WINTER DISTRICT   GRADE 2   2023-2024

Write a story on your own paper. You must write about at least one of the things shown on this page. You may use as many of the pictures as you want.
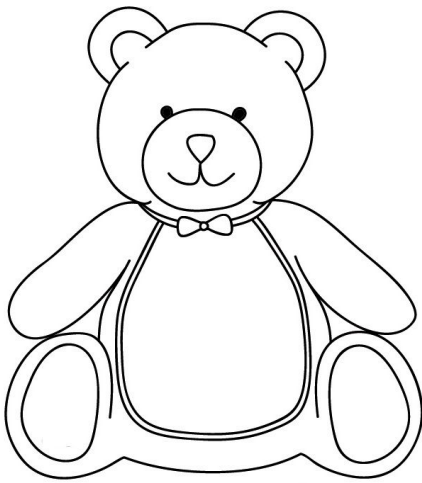
teddy bear
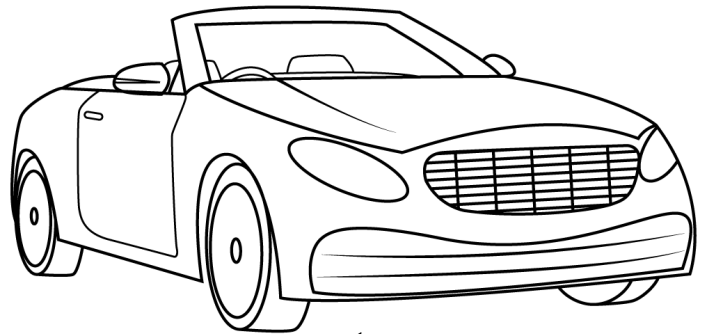
sports car

microphone

calendar
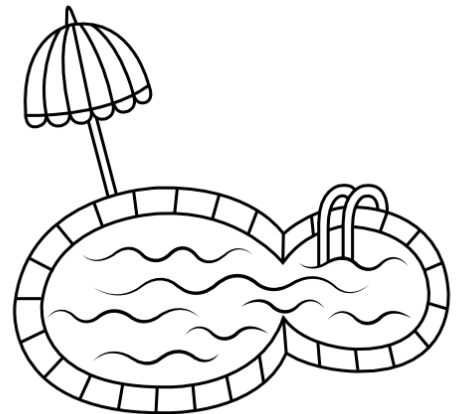
swimming pool

A+ Creative Writing Contest

SPRING DISTRICT   GRADE 2   2023-2024

Write a story on your own paper. You must write about at least one of the things shown on this page. You may use as many of the pictures as you want.
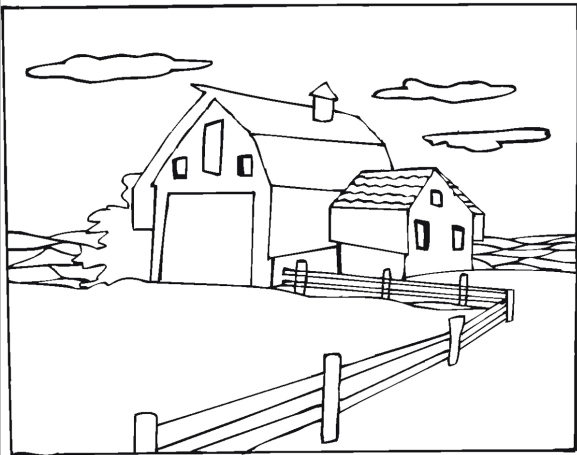
farm
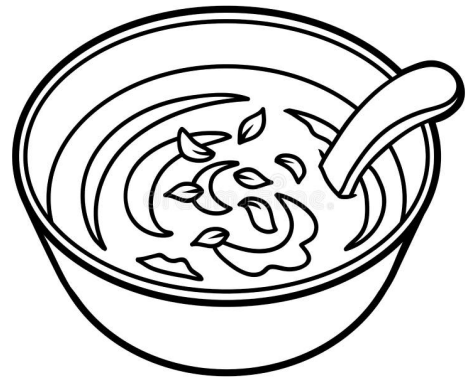
soup
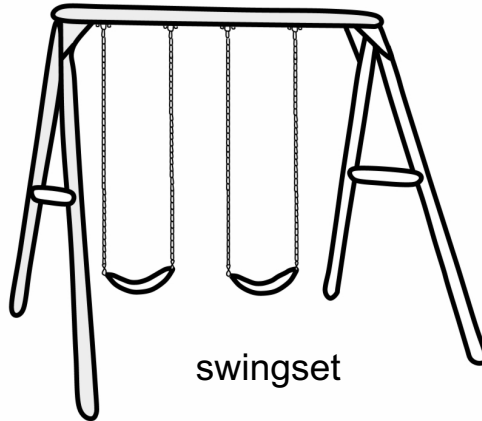
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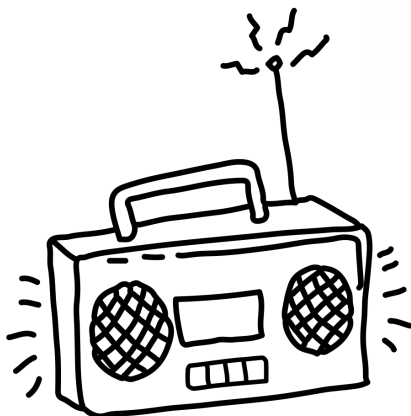
radio

birthday party

FOR GRADER USE ONLY
Score Test Below:

_____out of 120. Initials_____

_____out of 120. Initials_____

Papers contending to place:

_____out of 120. Initials_____

University Interscholastic League
A+ Dictionary Skills Contest • Answer Sheet

Write your contestant number in the upper right corner, and circle your grade below.
Circle Grade Level: 5   6   7   8

1.	A	B	C	D
2.	A	B	C	D
3.	A	B	C	D
4.	A	B	C	D
5.	A	B	C	D
6.	A	B	C	D
7.	A	B	C	D
8.	A	B	C	D
9.	A	B	C	D
10.	A	B	C	D
11.	A	B	C	D
12.	A	B	C	D
13.	A	B	C	D
14.	A	B	C	D
15.	A	B	C	D
16.	A	B	C	D
17.	A	B	C	D
18.	A	B	C	D
19.	A	B	C	D
20.	A	B	C	D

21.	A	B	C	D				
22.	A	B	C	D				
23.	A	B	C	D				
24.	A	B	C	D				
25.	A	B	C	D				
26.	A	B	C	D				
27.	A	B	C	D				
28.	A	B	C	D				
29.	A	B	C	D				
30.	A	B	C	D				
31.	A	B	C	D				
32.	A	B	C	D				
33.	A	B	C	D	E	F	G	H
34.	A	B	C	D	E	F	G	H
35.	A	B	C	D	E	F	G	H
36.	A	B	C	D	E	F	G	H
37.	A	B	C	D	E	F	G	H
38.	A	B	C	D	E	F	G	H
39.	A	B	C	D	E	F	G	H
40.	A	B	C	D	E	F	G	H

INVITATIONAL 2023-2024
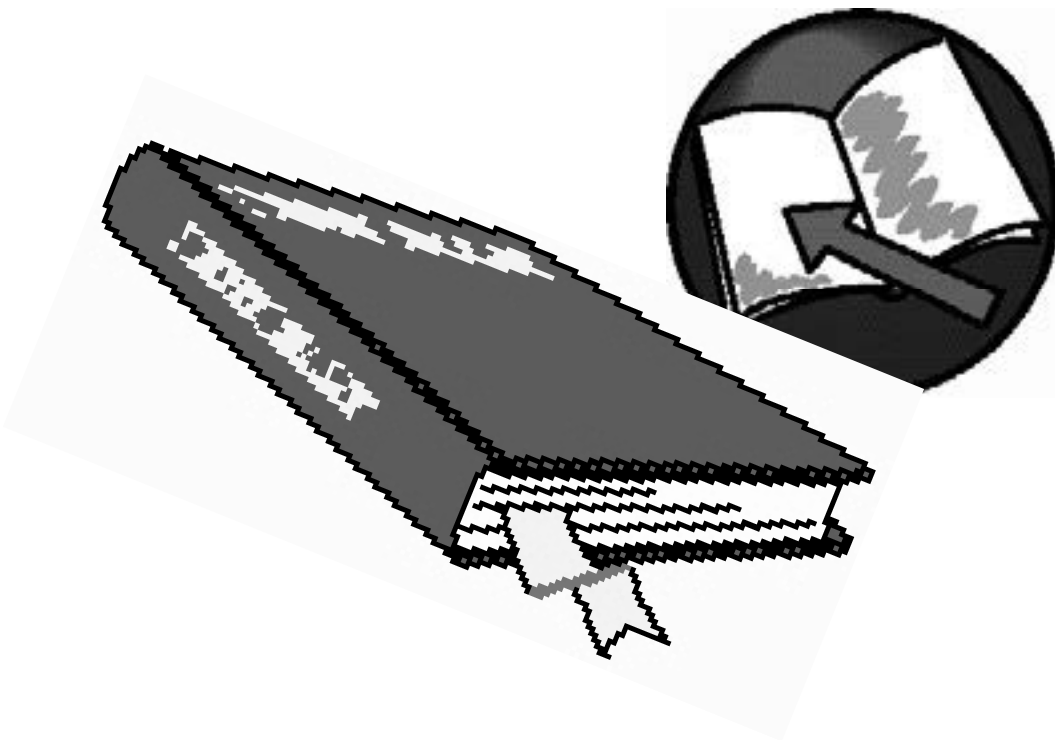
A+ ACADEMICS

University Interscholastic League

Dictionary Skills
grades 5 & 6

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

University Interscholastic League
2023-2024 Dictionary Skills Contest
Invitational District Test — Grades 5 & 6

1. Kaolin can be used in the treatment of which of the following illnesses?
   A. Cough
   B. Fever
   C. Diarrhea
   D. Nosebleed

2. When something is effervescing, it is doing what?
   A. Increasing in temperature
   B. Growing larger
   C. Drying up
   D. Releasing gas

3. Who would typically perform a cantata?
   A. Choirs
   B. Ballet dancers
   C. Actors
   D. Magicians

4. Gingivitis is the inflammation of which body part?
   A. Liver
   B. Gums
   C. Kidney
   D. Eye

5. According to the Roman myth, the month of January is named for Janus, who was associated with which of the following?
   A. Beginnings
   B. Winter
   C. The number one
   D. Calendars

6. One who dawdles is performing their duties _____?
   A. Incorrectly
   B. Efficiently
   C. Slowly
   D. Neatly

7. Sally walked into the classroom with trepidation. She was feeling _____ about the first day of school.
   A. Excited
   B. Nervous
   C. Confused
   D. Sad

8. What kind of gem is agate?
   A. Quartz
   B. Emerald
   C. Diamond
   D. Onyx

9. Which of the following buildings has the most in common with a hostel?
   A. Inn
   B. Hospital
   C. Office building
   D. Grocery store

10. What kind of item is a marimba?
    A. Medical equipment
    B. Art supply
    C. Musical instrument
    D. Article of clothing

11. According to the periodic table, the element Barium has an an atomic number of 56 and an atomic weight of _____?
    A. 10.81
    B. 51.996
    C. 157.25
    D. 137.33

12. Lanugo is most similar to which of the following?
    A. Steel
    B. Fur
    C. Paint
    D. Glass

13. If something has high fidelity, then it has what property?
    A. Strength
    B. Accuracy
    C. Speed
    D. Brightness

14. The thalamus is an important part of which organ?
    A. Brain
    B. Heart
    C. Spleen
    D. Appendix

15. Johnny is acting quite boisterous today. What is Johnny doing?
    A. Being sneaky
    B. Being creative
    C. Being noisy
    D. Being tidy

16. Ophthalmology is the branch of science dealing with _____?
    A. Plants
    B. Dinosaurs
    C. Eyes
    D. Lungs

17. Which of the following is an example of an aberration?
    A. A line drawn with a ruler
    B. A perfectly round basketball
    C. A yellow banana
    D. A thunderstorm on a sunny day

18. A junco is what kind of animal?
    A. Dog
    B. Bird
    C. Cat
    D. Fish

19. Which of the following is used to make synthetic rubber?
    A. Isoprene
    B. Isosceles
    C. Isopod
    D. Isotherm

20. A state senator is about to filibuster the vote on a bill. What will the senator do?
    A. Vote for the bill
    B. Ask the other senators to vote for the bill
    C. Give a long speech to stop the vote on the bill
    D. Leave without voting

21. Tomorrow's club meeting is _____ for members. They must attend or they can no longer be in the club.
    A. Oblique
    B. Obligatory
    C. Obscene
    D. Objective

22. If a car is utilitarian, then it is _____?
    A. Very fast and loud
    B. Very big and wide
    C. Very simple and reliable
    D. Very colorful and sparkly

23. Betty has some old books she'd like to move to the attic. She is about to _____ these books.
    A. Exacerbate
    B. Relegate
    C. Investigate
    D. Mitigate

24. What does a lux measure?
    A. Sound
    B. Temperature
    C. Light
    D. Pressure

25. Outside of its natural habitat, where else would you most likely find a rhesus monkey?
    A. Classroom
    B. Laboratory
    C. Courtroom
    D. Ice rink

26. Which of the following would most likely be described as gallant?
    A. Knight
    B. Pig
    C. Mechanic
    D. Hamster

27. A brown dwarf is _____ and _____ than a normal star.
    A. Larger; brighter
    B. Smaller; brighter
    C. Larger; dimmer
    D. Smaller; dimmer

28. If something is covered in paraffin, then it is covered in what kind of substance?
    A. Feathers
    B. Wax
    C. Metal
    D. Glass

29. How many bells are rung on a ship to indicate it is 7:30?
    A. 3
    B. 7
    C. 10
    D. 12

30. A placebo is a medical treatment that has what kind of effect?
    A. Cooling feeling
    B. Usually no effect
    C. Allergic reaction
    D. Rapid healing

31. What kind of food would have kohlrabi as an ingredient?
    A. Ice cream sundae
    B. Yogurt parfait
    C. Raw salad
    D. Cherry pie

32. According to the metric system, a dekaliter is equal to how many liters?

    A. 0.1   C. 5

    B. 2   D. 10

Match each of the following words to its correct meaning:

_____ 33. dystopia   A. Peaceful

_____ 34. monolith   B. A silver-white element

_____ 35. idyll   C. Having a slight difference

_____ 36. sibilant   D. An unhappy place

_____ 37. cobalt   E. Large and powerful

_____ 38. nonagon   F. Monument or column

_____ 39. herculean   G. A shape with nine sides

_____ 40. nuance   H. Making a "s" sound

University Interscholastic League
2023-24 Dictionary Skills Contest
Invitational Test — Grades 5 & 6

Answer Key

1.	C		21.	B
2.	D		22.	C
3.	A		23.	B
4.	B		24.	C
5.	A		25.	B
6.	C		26.	A
7.	B		27.	D
8.	A		28.	B
9.	A		29.	B
10.	C		30.	B
11.	D		31.	C
12.	B		32.	D
13.	B		33.	D
14.	A		34.	F
15.	C		35.	A
16.	C		36.	H
17.	D		37.	B
18.	B		38.	G
19.	A		39.	E
20.	C		40.	C

University Interscholastic League
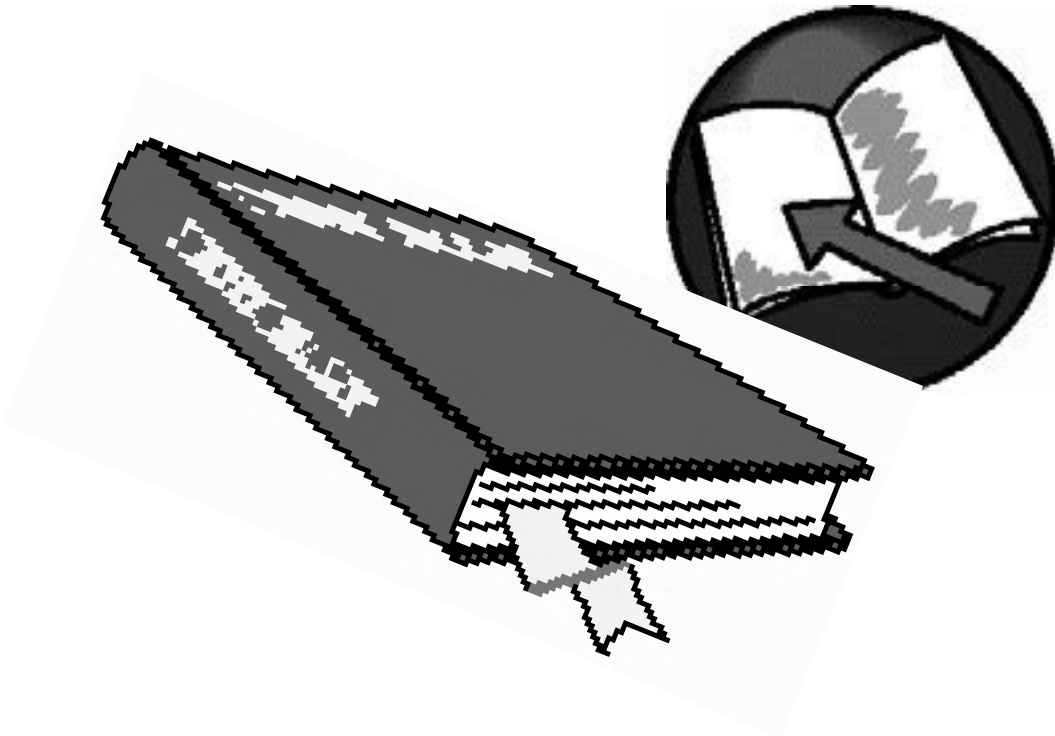
Dictionary Skills
grades 5 & 6

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

University Interscholastic League
2023-2024 Dictionary Skills Contest
Fall/Winter District Test — Grades 5 & 6

1. A tarpon is a kind of _____?
   - A. Bird
   - B. Ape
   - C. Fish
   - D. Amphibian

2. On about what days of the year is there an equinox?
   - A. January 1, July 1
   - B. May 31, September 1
   - C. June 21, December 21
   - D. March 21, September 23

3. A cent is to a dollar as a kopeck is to what currency?
   - A. Yen
   - B. Ruble
   - C. Pound
   - D. Euro

4. The Roman numeral for the number five hundred (500) is _____?
   - A. V
   - B. D
   - C. C
   - D. L

5. The Painted Desert region is in which U.S. State?
   - A. Arizona
   - B. Idaho
   - C. Utah
   - D. Nevada

6. Rough Riders were cavalry members in what American war?
   - A. American Revolution
   - B. Civil War
   - C. Spanish-American War
   - D. War of 1812

7. Which of the following games is most similar to pinochle?
   - A. Hide and seek
   - B. Solitaire
   - C. Tag
   - D. Chess

8. What material is shaped using an adze?
   - A. Wood
   - B. Steel
   - C. Glass
   - D. Marble

9. In the semaphore system, how do you signal the letter R?
   - A. Flags held crossed above head
   - B. Left flag raised, right flag down
   - C. Flags held straight out on both sides
   - D. Right flag raised, left flag down

10. Which of the following items is homogenous?
    A. A glass of water
    B. A bowl of cereal and milk
    C. A plate of chicken and rice
    D. A slice of cherry pie

11. Sauerbraten is soaked in _____ before being roasted?
    A. Beef broth
    B. Milk
    C. Vinegar
    D. Saltwater

12. What does the abbreviation BMR stand for?
    A. Basic metabolism rating
    B. Bottom metastatic rate
    C. Broad metatarsal reach
    D. Basal metabolic rate

13. Mike and Michelle are stargazing in their backyard. Mike points out Sirius easily because it is the _____ star in the sky.
    A. Largest
    B. Closest
    C. Brightest
    D. Northernmost

14. Fossils of the dinosaur diplodocus have been found in what region of the U.S.?
    A. Northern
    B. Western
    C. Southern
    D. Eastern

15. What kind of body covering does a pangolin have?
    A. Scales
    B. Fur
    C. Feathers
    D. Spines

16. Johnny tripped and scraped his elbow on the sidewalk. He has an _____ on his elbow.
    A. Abrasion
    B. Abscond
    C. Abnegate
    D. Abject

17. Which of the following clothing items is most similar to an ulster?
    A. Dress
    B. Coat
    C. Skirt
    D. Button-up shirt

18. What common household item usually contains zinc oxide?
    A. Bathroom cleaner
    B. Laundry detergent
    C. Shampoo
    D. Sunscreen

19. In the mouth, what are molars used for?
    A. Tearing
    B. Biting
    C. Grinding
    D. Ripping

20. Jicama comes from what language?
    A. Canadian French
    B. Mexican Spanish
    C. Pennsylvania Dutch
    D. American Navajo

21. Which of the following is NOT a type of cloud?
    A. Cirrus
    B. Stratocumulus
    C. Nimbostratus
    D. Altocirrus

22. In the Hindu religion, what is Vishnu the god of?
    A. Preservation
    B. War
    C. Health
    D. Creation

23. On the geologic time scale, when were the earliest fish believed to have existed?
    A. Jurassic period
    B. Cambrian period
    C. Cretaceous period
    D. Permian period

24. A case for carrying arrows is known as a _____?
    A. Quiver
    B. Quisling
    C. Quince
    D. Quinine

25. Where could you find people speaking Occitan?
    A. Southern France
    B. Northern Italy
    C. Western Spain
    D. Eastern Germany

26. What is the upper weight limit for a boxer to be classified as a featherweight?
    A. 154 pounds
    B. 126 pounds
    C. 209 pounds
    D. 177 pounds

27. Historically, what was jade believed to help relieve?
    A. Headaches
    B. Fevers
    C. Kidney problems
    D. Indigestion

28. What does LAN stand for?
    A. Limited Access Network
    B. Limited Area Network
    C. Local Area Network
    D. Local Access Network

29. In order to fit in a bassinet, one should be _____?
    A. A teenager
    B. An infant
    C. An adult
    D. A toddler

30. The Nobel Prize is named for _____ Nobel.
    A. Albert
    B. Alexander
    C. Alfred
    D. Andrew

31. Which of the following states did the Kiowa NOT live in?
    A. Nebraska
    B. Colorado
    C. Kansas
    D. Oklahoma

32. What kind of snake is the water moccasin most closely related to?
   A. Rattlesnake   C. Mamba
   B. Python   D. Copperhead

Match each of the following words to its correct meaning:

_____ 33. infelicity   A. harsh words

_____ 34. rapacious   B. universe

_____ 35. vitriol   C. to make repeated cries

_____ 36. colloquial   D. inappropriate behavior

_____ 37. gazpacho   E. cold soup

_____ 38. macrocosm   F. to tear roughly

_____ 39. lacerate   G. greedy

_____ 40. yammer   H. informal

University Interscholastic League
2023-24 Dictionary Skills Contest
Fall/Winter Test — Grades 5 & 6

Answer Key

1.	C	21.	D
2.	D	22.	A
3.	B	23.	B
4.	B	24.	A
5.	A	25.	A
6.	C	26.	B
7.	B	27.	C
8.	A	28.	C
9.	C	29.	B
10.	A	30.	C
11.	C	31.	A
12.	D	32.	D
13.	C	33.	D
14.	B	34.	G
15.	A	35.	A
16.	A	36.	H
17.	B	37.	E
18.	D	38.	B
19.	C	39.	F
20.	B	40.	C

University Interscholastic League
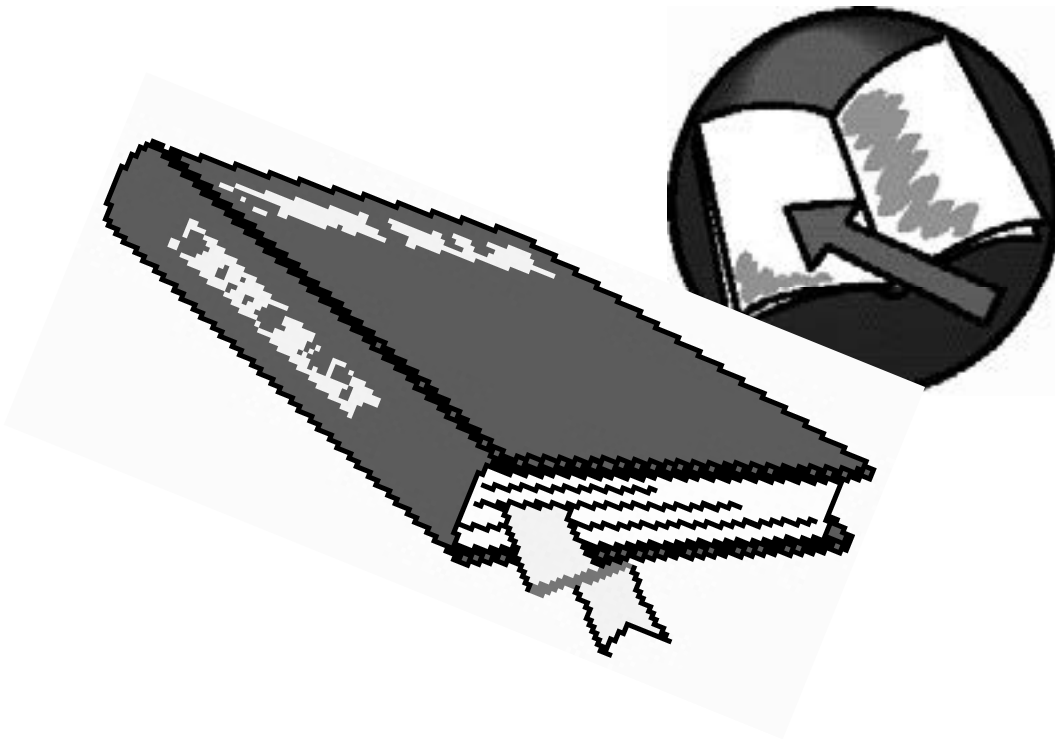
Dictionary Skills
grades 5 & 6

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

University Interscholastic League
2023-24 Dictionary Skills Contest
Spring District Test — Grades 5 & 6

1. Which of the following jobs is sartorial?
   A. Veterinarian
   B. Tailor
   C. Paramedic
   D. Soldier

2. Greg is recumbent on the floor. What is he doing?
   A. Sitting
   B. Crawling
   C. Lying down
   D. Stretching

3. Valhalla belongs to which ancient mythology?
   A. Greek
   B. Roman
   C. Norse
   D. Egyptian

4. What color is beech?
   A. Yellow
   B. Gray
   C. Brown
   D. Red

5. Zeta is the _____ letter of the Greek alphabet?
   A. First
   B. Last
   C. Twelfth
   D. Sixth

6. What group of stars is Cygnus closest to?
   A. Taurus
   B. Pegasus
   C. Ursa Major
   D. Orion

7. What mapmaker named his map book after the Greek mythology giant Atlas?
   A. Peter Apian
   B. Mark Monmonier
   C. Gerardus Mercator
   D. George Philip

8. Vilnius is the capital of which European country?
   A. Luxembourg
   B. Monaco
   C. Andorra
   D. Lithuania

9. Which of the following figures is used to depict the constellation Orion?
   A. A lion
   B. A bear
   C. A hunter
   D. An archer

10. On a map, what do isobars represent?
    A. Temperatures
    B. Pressures
    C. Winds
    D. Precipitation

11. The number that results from adding numbers is called a sum. What is the number that results from dividing numbers called?
    A. Quotient
    B. Quotation
    C. Quixotic
    D. Quittance

12. How many leaves does a cinquefoil have?
    A. 4
    B. 5
    C. 6
    D. 10

13. Which of the following states is not part of the mountain time zone?
    A. Wyoming
    B. New Mexico
    C. Oklahoma
    D. Utah

14. On the Mohs' scale, what mineral is rated a 10?
    A. Ruby
    B. Diamond
    C. Sapphire
    D. Emerald

15. What flavor do partridgeberries have?
    A. Tart
    B. Sweet
    C. Salty
    D. No flavor

16. What does a highwayman do on the road?
    A. Directs traffic
    B. Collects tolls
    C. Repairs streets
    D. Robs travelers

17. In the zodiac, what symbol does Aries take?
    A. Crab
    B. Goat
    C. Ram
    D. Lion

18. If someone has SRO tickets at a football game, what kind of seats do they have?
    A. Select reserved on-field
    B. Standing room only
    C. Special reservation option
    D. Single reporter only

19. How many events are in a pentathlon?
    A. One
    B. Three
    C. Five
    D. Seven

20. What part of the body is also known as the scapula?
    A. Shoulder blade
    B. Kneecap
    C. Collarbone
    D. Spinal column

21. What is tapioca made from?
    A. Cassava
    B. Sweet potato
    C. Taro
    D. Ginger

22. Which of the following is not a triangle?
    A. Equilateral
    B. Quadrilateral
    C. Scalene
    D. Obtuse

23. One karat is equal to _____ part of pure gold to other metals?
    A. 1/24
    B. 1/12
    C. 1/6
    D. 1/3

24. The white of an egg is known as _____?
    A. Alkali
    B. Albumen
    C. Algonquian
    D. Alkyd

25. How many sides does a decagon have?
    A. Four
    B. Six
    C. Eight
    D. Ten

26. What is the element neodymium's atomic number?
    A. 40
    B. 60
    C. 80
    D. 100

27. Where on a horse is the forelock?
    A. On the hoof
    B. Above the chest
    C. Front of the head
    D. Below the neck

28. What type of milk is Roquefort made from?
    A. Sheep's
    B. Cow's
    C. Almond
    D. Goat's

29. The Uspallata pass can be found in which mountain range?
    A. Rocky Mountains
    B. Appalachian Mountains
    C. Alaska Range
    D. Andes

30. What household item is most similar to a reticule?
    A. Eyeglasses
    B. Purse
    C. Lamp
    D. Bowl

31. What marching rate is double time?
    A. 90 steps per minute
    B. 135 steps per minute
    C. 180 steps per minute
    D. 225 steps per minute

32. What kind of stem does a briar have?
    A. Smooth
    B. Leaf-covered
    C. Thorny
    D. Short

Match each of the following words to its correct meaning:

_____ 33. maladroit   A. marking a beginning

_____ 34. lacquer   B. not lasting

_____ 35. inaugural   C. woman who teaches children

_____ 36. nutmeg   D. lasso

_____ 37. governess   E. female donkey

_____ 38. evanescent   F. awkward or clumsy

_____ 39. jenny   G. spice grown in Indonesia

_____ 40. lariat   H. material that dries into a shiny layer

University Interscholastic League
2023-24 Dictionary Skills Contest
Spring Test — Grades 5 & 6

Answer Key

1.	B	21.	A
2.	C	22.	B
3.	C	23.	A
4.	B	24.	B
5.	D	25.	D
6.	B	26.	B
7.	C	27.	C
8.	D	28.	A
9.	C	29.	D
10.	B	30.	B
11.	A	31.	C
12.	B	32.	C
13.	C	33.	F
14.	B	34.	H
15.	A	35.	A
16.	D	36.	G
17.	C	37.	C
18.	B	38.	B
19.	C	39.	E
20.	A	40.	D

CONTESTANT NUMBER:

University Interscholastic League
A+ Listening Contest • Answer Sheet

Write your contestant number in the upper right corner, and circle your grade below.

Circle Grade Level :   **5   6   7   8**

1. **A**	**B**	**C**	**D**		14. **A**	**B**	**C**	**D**
2. **A**	**B**	**C**	**D**		15. **A**	**B**	**C**	**D**
3. **A**	**B**	**C**	**D**		16. **A**	**B**	**C**	**D**
4. **A**	**B**	**C**	**D**		17. **A**	**B**	**C**	**D**
5. **A**	**B**	**C**	**D**		18. **A**	**B**	**C**	**D**
6. **A**	**B**	**C**	**D**		19. **T**	**F**		
7. **A**	**B**	**C**	**D**		20. **T**	**F**		
8. **A**	**B**	**C**	**D**		21. **T**	**F**		
9. **A**	**B**	**C**	**D**		22. **T**	**F**		
10. **A**	**B**	**C**	**D**		23. **T**	**F**		
11. **A**	**B**	**C**	**D**		24. **T**	**F**		
12. **A**	**B**	**C**	**D**		25. **T**	**F**		
13. **A**	**B**	**C**	**D**					

UIL LISTENING CONTEST - GRADES 5/6
INVITATIONAL MEET 2023-2024
"Texas Bluebonnets"

One of the best things about spring in Texas is the flowers. Wildflowers bloom along the highways and hillsides, pastures and prairies. Flowers of every color and hue. The most common color is red, but pink, blue, and purple are also seen. Also called wild phlox, Prairie verbena, one of the most prominent flowers found statewide, blooms most profusely in spring, but may flower at other times of the year depending on rainfall. Other wildflowers that can be seen are pink evening primroses, Mexican blankets, lemon mint, and of course the Texas State Flower, the bluebonnet.

The bluebonnet's scientific name is *Lupinus subcarnosus* (loo-pie'-nus sub-car-no'-sus). It is also known as buffalo clover, wolf flower, and "el conejo" or rabbit, in Spanish. It is sometimes said that the vibrant blue flowers resemble the bonnets worn by pioneer women to shield themselves from the harsh Texas sun. It is typically mid to late April that bluebonnets bloom throughout central and south Texas. They generally have white or yellow spikes and can grow to be approximately 12 inches tall. They are related to pea plants and germinate in the fall and winter and bloom again in the spring which makes them annuals. Although they are related to peas, bluebonnets are

1:00 actually poisonous. Those pretty blue petals contain a toxin that can seriously damage the nervous system of both animals and humans.

When Texas decided to designate a state flower back in 1901, the decision was difficult. The Texas State Legislature asked for nominations, and three different speakers submitted a nomination for different flowers. Each speaker was passionate about the flower they chose. The first flower nominated was the cotton plant. This flower was nominated because cotton had a huge impact on the Texas economy and economic independence. The second nomination was from a legislator nicknamed "Cactus Jack" who wanted the state flower to be the pear cactus for its hardiness and strength. Appalled by what they deemed as ugly flower choices, the National Society of Colonial Dames of America nominated the bluebonnet as a way to honor the many brave Texas

pioneer women who had helped settle the state. For a while, it seemed that cotton would surely win. Not to be outdone, the women of the NSCDA placed paintings of bluebonnets on the floor of the legislature and arrangements of bluebonnets on each politician's desk on the day of the voting. And, of course, the bluebonnet won.

2:00   While the *Lupinus subcarnosus* species of bluebonnet was the original choice, it happened to be the least beautiful of the different varieties of bluebonnets. Because of this, in 1971 the Texas legislature decided to combine all varieties of bluebonnets as one official state flower, allowing the more beautiful varieties to be considered as well. According to Flo Oxley, a program coordinator at the Lady Bird Johnson Wildflower Center in Austin, legislation was written that any and all species of bluebonnets would fall under the umbrella of the name State Flower of Texas.

Texas, as a result, has eight types of bluebonnets, the smaller *Lupinus subcarnosus* and the showier, larger *Lupinus Texensis* (loo-pie-nus tex-en-sis) being the most popular. More than likely, the *Lupinus Texensis* is the one you think of when you think of bluebonnets. Texas is the only place you'll find both the *Lupinus Texensis* and the *Lupinus Subcarnosus* species of bluebonnets. However, it is not the only state where bluebonnets grow. They also grow in Florida, Louisiana and Oklahoma. Bluebonnets thrive on 8-10 hours of sunshine per day, alkaline soils, and low moisture. Texas has the perfect climate. It's not surprising, then, that Texas has more bluebonnets than anywhere else in the world. In fact, after the Texas Highway Department was

3:00   organized in 1917, officials noticed that bluebonnets began growing naturally alongside new roads and areas of construction. Instead of getting rid of them, officials began to maintain the flowers. In 1932, landscape architect, Jac Gubbels encouraged and cultivated the growth of native wildflowers along Texas highways. Because of his work, the Texas Department of Transportation delays the mowing of Texas roadsides until after wildflower season is over to allow the flowers to spread their seeds. In addition, the Texas Department of Transportation purchases about 30,000 pounds of wildflower seed each year to sow alongside Texas roadways. And, of course, bluebonnets are included in those seeds.

As a kid, one of the things my family enjoyed was stopping by a field of bluebonnets and taking family bluebonnet photos. If you are going to do that, you might want to go to one of the many state parks. That being said, you should know that it is illegal to pick bluebonnets in a Texas State Park. It is actually illegal to pick, cut or destroy plant life anywhere on the park grounds. It is also illegal to trespass on private property, so be sure that when you are looking for bluebonnets to photograph, you respect the

4:00 wishes of the owners of the land. What is not illegal, however, is to pick bluebonnets from public roadways. Just be careful of the traffic! Another peril you should be aware of is that bees love bluebonnets and can frequently be found flitting from bluebonnet to bluebonnet in the fields. While visiting a patch of bluebonnets, be sure not to dig up large clumps of flowers or drive your vehicle into the flower patch. Many of the roadside wildflowers are annuals that will not be able to drop seed and grow again next year if they are trampled or removed while they are blooming.

There are several legends about the origins of the bluebonnet. According to the Bullock Museum, one Native American legend tells how the bluebonnet came to be. The legend tells of the terrible, catastrophic weather in Texas. Severe flooding followed by devastating drought, blizzards, and sweltering heat caused food to be scarce. Starvation and disease swept through the tribes. The chiefs decided that the great spirit was surely angry with them and must be appeased. In order to try to appease the Great Spirit, a small girl offered her favorite doll which was decorated with blue feathers. She placed it in a fire as an offering. When the fire died, she scattered the ashes to the 4 winds. When the people awoke the next day, the land was covered with

5:00 bright blue flowers – the Texas Bluebonnet. This legend has been told for many years and many Texans believe that the flower's determination to come back year after year despite soil and weather conditions is a great symbol of the resilience of true Texans.

Another Native American folktale tells of the Jumano people of Texas who were mysteriously visited by a Spanish nun in a blue cloak. After sharing her faith with the Jumano, she disappeared one night leaving a field of bluebonnets behind.

Another legend that Texans enjoy is the legend of the Pink Bluebonnet. This legend began with 2 children playing outside. Upon spotting a pink and white bluebonnet, they asked their grandmother why the flowers were the wrong color. The grandmother replied that the white flower represents the Lone Star on the Texas flag, and the pink flower honors the brave soldiers who lost their lives at the Alamo. Of course, this is not really why the flowers are pink and white, but it makes for a good story, doesn't it?

Although bluebonnets are found statewide, one of the best places to find them is in Ennis. Ennis was named the official Bluebonnet City of Texas in 1997. Each year from **6:00** April 1-30, Ennis hosts the Official Texas Bluebonnet Trails which includes 40 miles of wildflowers! These trails are the oldest such trails known in the state! Chappell Hill is also known for its amazing wildflowers. Chappell Hill hosts the Official State of Texas Bluebonnet Festival each year. Another city is Burnet. Burnet, located in central Texas about an hour from Austin and is called the Bluebonnet Capital of Texas.

If you would like to try growing bluebonnets for yourself, it shouldn't be too difficult. Many local garden centers even have bluebonnets you can transplant. However, if you want to plant them from seed, then spread the seeds over the area where you are planting, lightly cover them with soil, and water them. Given full sun and plenty of water, the seeds should germinate. After that, bluebonnets won't require much care. The rain will water them and there is no need to fertilize them since they don't need quality soil. And, because they are annuals which spread their seed, you shouldn't have to plant them again next year.

Bluebonnets are so well loved in Texas that they have even become part of the culture. In the 1970s, the Women's Football League founded a team called the Dallas Bluebonnets. Julia D. Booth and Lora C. Crockett – an actual relative of Davy Crockett **7:00** – wrote a song called *Bluebonnets* which was adopted by the state as the State Flower Song in 1933.

Our state flower is definitely something to be proud of!

A+ ACADEMICS

University Interscholastic League

Listening
grades 5 & 6

DO NOT OPEN TEST
UNTIL TOLD TO DO SO

UIL LISTENING CONTEST - GRADES 5/6
INVITATIONAL MEET 2023-2024
"Texas Bluebonnets"

1. Who first nominated bluebonnets to be the State Flower of Texas?
   A. Cactus Jack
   B. National Society of Colonial Dames of America
   C. Texas State Legislature
   D. Bluebonnet Society of Texas

2. Which of the following states do bluebonnets NOT grow naturally?
   A. Oklahoma
   B. Louisiana
   C. Florida
   D. New Mexico

3. About how many hours a day of direct sunshine do bluebonnets need?
   A. 4-6
   B. 6-8
   C. 8-10
   D. 10-12

4. How many inches tall do bluebonnets generally grow?
   A. 3
   B. 6
   C. 12
   D. 18

5. In what year did Texas decide to adopt a state flower?
   A. 1901
   B. 1971
   C. 1913
   D. 1932

6. Bluebonnets are also known as buffalo flower, el conejo and
   A. clover blooms
   B. rabbit clover
   C. sapphire glory
   D. wolf flower

7. What was the name of the landscape architect who encouraged and cultivated the growth of native wildflowers along Texas highways in 1932?
   A. Jac Gubbles
   B. Julia Booth
   C. Mark Ennis
   D. Lora Copeland

8. Why was the cotton flower nominated as the state flower?
   A. It was a crop that helped the state economically.
   B. Cotton flowers in bloom were a symbol of prosperity.
   C. Most farmers in Texas grew cotton as well as edible crops.
   D. Cotton was the primary fiber in which cloth was made in Texas.

9. When was Bluebonnets adopted as the state flower song?
   A. 1913
   B. 1933
   C. 1925
   D. 1971

10. Which city hosts the official Bluebonnet Trails each year?
    A. Chappell Hill
    B. Ennis
    C. Fredericksburg
    D. Burnet

11. In what year was the Texas Highway Department organized?
    A. 1910
    B. 1901
    C. 1917
    D. 1905

12. About how many pounds of wildflower seed does the Texas Department of Transportation purchase each year to sow along Texas highways?
    A. 15,000
    B. 20,000
    C. 25,000
    D. 30,000

13. In the legend of the Pink and White Bluebonnet, why were the flowers pink?
    A. Pink represents the love that all Texans have for their state.
    B. Pink shows honor to the women who fought alongside men for Texas.
    C. Pink represents the beautiful sun rises and sunsets seen in Texas.
    D. Pink honors the men who fought and died at the Alamo.

14. Based on the information in the text, what happens when a flower germinates?
    A. It drops its seed and dies.
    B. The stalk bursts into bloom.
    C. The bulb becomes dormant.
    D. The seed begins to grow.

15. How many varieties of bluebonnets does Texas currently have?
    A. 1
    B. 3
    C. 8
    D. 10

16. In what month do bluebonnets typically bloom throughout central and south Texas?
    A. March
    B. April
    C. May
    D. June

17. Where is the Ladybird Johnson Wildflower Center located?
    A. Burnet
    B. Austin
    C. Ennis
    D. San Antonio

18. Which is the only state you'll find both the *Lupinus Texensis* and the *Lupinus Subcarnosus* species of Bluebonnets growing naturally?
    A. Texas
    B. Louisiana
    C. Florida
    D. Oklahoma

True/False

19. Although they are related to peas, bluebonnet petals are actually poisonous and contain a toxin that can seriously damage the nervous system of both animals and humans, while the seeds, like peas, can be eaten.

20. In 1901, the pear cactus was nominated to be the state flower because of its hardiness and strength.

21. It is illegal to pick bluebonnets in Texas State Parks for wildflower viewing although you may pick other plant life and flowers found in specified areas on the park grounds.

22. Native American folktale tells of the Jumano people of Texas who were mysteriously visited by a Spanish nun in a blue cloak who, after sharing her faith with the Jumano, disappeared one night leaving a field of bluebonnets behind.

23. In the 1970s, the Women's Football League founded a team called the Dallas Bluebonnets.

24. Although *Lupinus subcarnosus* is larger, *Lupinus Texensis* is showier and more popular due to its brighter colors.

25. While it is legal to take pictures in bluebonnet fields, it is not legal to pick bluebonnets along public roadways or dig them up.

UIL LISTENING CONTEST - GRADES 5/6
INVITATIONAL MEET 2023-2024
"Texas Bluebonnets"
Answer Key

1.	B	14.	D
2.	D	15.	C
3.	C	16.	B
4.	C	17.	B
5.	A	18.	A
6.	D	19.	False
7.	A	20.	True
8.	A	21.	False
9.	B	22.	True
10.	B	23.	True
11.	C	24.	False
12.	D	25.	False
13.	D		

"Emily Warren Roebling – The First Woman Chief Engineer"

Most of us have never been to New York City. Even if you haven't been there in person, you might recognize the image of the Brooklyn Bridge which connects the boroughs of Lower Manhattan and Brooklyn by spanning the East River. Known for its stone arches, the Brooklyn Bridge contains six lanes for vehicles and a shared pedestrian and bicycle path. It does not allow large trucks.

As of 2018, an average of over 116,000 vehicles, 30,000 pedestrians and 3,000 cyclists travel over the Brooklyn Bridge each day. The Brooklyn Bridge was designed by John A. Roebling. Construction began in 1869 and was completed in 1883. At the time, it was the longest suspension bridge in the world. What is not widely known, however, is that construction of the bridge might not have been completed if not for the tireless work of Emily Warren Roebling, better known as the "woman who saved the Brooklyn Bridge."

Emily Warren was born in Cold Spring, New York on September 23, 1843, to a socially prominent family that could trace their family tree back to the Mayflower. She was the eleventh of twelve children. Her father, Sylvanus Warren, was a state assemblyman and town supervisor. Her older brother, Gouverneur K. Warren, graduated from the United States Military Academy at West Point, New York. He became a corps commander in the Union army during the American Civil War. Emily was educated at a convent school, the Georgetown Academy of the Visitation in Washington, DC, where she studied history, astronomy, and algebra, among other subjects, in addition to needlework and housekeeping.

In 1864, she met her future husband, Washington Roebling, who was serving as an engineering officer on her brother's staff. Washington was the son of John Roebling, an eminent German-American civil engineer who was in the process of designing what

1:00

he called "the greatest bridge in existence" — the future Brooklyn Bridge. The Brooklyn Bridge was the longest-span suspension bridge in the world at that time and the first to be built with steel cables. Washington and Emily were married in 1865, and Emily accompanied her husband to Europe, where he went on his father's orders to study the latest techniques of constructing foundations underwater by using sealed and pressurized caissons. The caissons were the watertight structures filled with

2:00   compressed air that would allow workers to dig under the East River and plant the bridge's footings.   While they were in Europe, they had one child, John Augustus Roebling II in 1867, who was born in the same town where Washington Roebling's father had been born, Muhlhausen, Germany.

In 1867 John Roebling, Washington's father, started design work on the Brooklyn Bridge. In 1868, Washington and Emily returned with their son to America in. On June 28, 1869, at Fulton Ferry, while John was standing at the edge of a dock, working on fixing the location where the bridge would be built, his foot was crushed by an arriving ferry. His injured toes were amputated. He refused further medical treatment and wanted to cure his foot by water therapy which consisted of continuous pouring of water over the wound. His condition deteriorated, however, and on July 22, 1869, twenty-four days after the accident, he died of tetanus at Washington and Emily's home Hicks Street in Brooklyn Heights. Tetanus is a potentially fatal bacterial infection that affects the nerves and causes painful muscle contractions, particularly in the jaw and neck. It can interfere with the ability to breathe, eventually causing death in the case of John Roebling. Although there is no cure for tetanus, we now have a vaccine that can prevent it.

After the death of his father, Washington immediately took over as chief engineer. But it wasn't long before Washington also became injured due to the dangers of the

3:00   construction effort. Upon taking over for his father, the most pressing job was to sink the caissons that would support the 275-foot granite towers on both the Brooklyn and Manhattan sides of the river. This was the first time that caissons were used in the United States. The caissons were large boxes that would be placed open side down on

the river bottom and then pressurized so that workers could dig out the earth or stone beneath and gradually cause the caisson to sink deeper and deeper into the river. As the caisson went down, the bridge tower was built up on top, and gradually rose out of the water.

Because he frequently entered and exited the pressurized caissons, Washington developed a case of "caisson's disease" or decompression sickness. Decompression sickness occurs when the body experiences rapid pressure reduction. For example, when divers go deeper and deeper under the water, the pressure becomes greater and greater. If they rise up to the surface too quickly, gasses which were dissolved in their blood and tissues turn into bubbles in the blood vessels. These bubbles can cause great pain and can block the blood vessels. By rising more slowly, it allows the body to compensate for this.

4:00 At the time that the Brooklyn Bridge was built, however, very little was known about caisson's disease except that it could lead to a person being crippled or even to death. No one knew that it could be avoided by slowing down the body's ascent from the deep water. During the course of the construction of the bridge, over one hundred workers were killed or left severely impaired by this illness. Washington became partially paralyzed, blind, deaf, and mute - or unable to speak.

This was a real problem. Washington was the chief engineer. Without his expertise, construction on the bridge would have to stop. From 1872 he was essentially an invalid. Emily cared for him in their home in Trenton, New Jersey where the Roebling family's steel cable factory was located, and in a residence in Brooklyn Heights from which Washington could observe the bridge work through a telescope. Emily served as Washington's liaison with the engineering team, and over time she displayed such proficiency in the issues of construction, materials, and cable fabrication that some **5:00** observers concluded she had assumed the duties of chief engineer. She served as spokeswoman and advocate for her husband, reassuring officials that he was capable of managing the project.

As the New York Times reported at the time, "Mrs. Roebling applied herself to the study of engineering, and she succeeded so well that in a short time she was able to assume the duties of chief engineer." For more than ten years, she dealt with contractors, supervised staff, inspected construction, and handled politicians and reporters. By the time the bridge was completed, she was known as the woman who managed one of the most significant construction projects of that time.

It took fourteen years for the bridge to be completed. When it was finished, Emily received praise for overseeing the construction of such an amazing architectural feat. During the opening ceremonies of the Brooklyn Bridge, U.S. Congressman Abram Steens Hewitt said that Emily Warren Roebling would forever be associated with "all that is admirable in human nature and all that is wonderful in the constructive world of art." He went on to say that the Brooklyn Bridge would be "an everlasting monument to the sacrificing devotion and her capacity for that higher education from which she has been too long disbarred." In other words, he was saying that by being so successful in building the Brooklyn Bridge, Emily had proved to the world that women were capable of learning difficult skills and should not be stopped from receiving a college education.

6:00 In fact, she had made history by becoming the first female field engineer. On the day that the bridge was opened, Emily Warren Roebling was the first to cross it. She rode in a carriage carrying a live rooster in her lap as a sign of victory.

After completing the Brooklyn Bridge project, Emily spent time supporting many women's and humanitarian causes. She wrote an award-winning essay entitled *A Wife's Disabilities,* which criticized the many laws that discriminated against women such as laws that restricted women from voting, owning property, and receiving an equal education to a man. She traveled the world, and in 1896, she was presented to Queen Victoria of the United Kingdom. She was even in St. Petersburg, Russia, for the coronation of Tsar Nicholas II. In 1899, she fulfilled her dream of pursuing further education and received a law certificate from New York University.

Although history began to forget Emily's work, her role as chief engineer has recently been rediscovered. A plaque still stands on the Brooklyn Bridge dedicating it to the memory of her father-in law, her husband, and Emily herself. Emily Warren Roebling died on February 28, 1903 in Trenton, New Jersey.

UIL LISTENING CONTEST - GRADES 5/6
SPRING DISTRICT 2023-2024
"Jelly Beans"

Now that spring is here, one of the main holidays of the season will be Easter. In fact, research shows that Easter is one of the most profitable holidays of the year. Since 2010, the amount of money Americans spend on Easter shopping per person has increased from $118.60 to $179.70 and is expected to be the highest on record this year at $20.8 billion. That's a lot of money spent on one holiday. One of the major expenses is the creation of Easter baskets, and no Easter basket is complete without a sprinkling of jelly beans. To be fair, jelly beans aren't America's top pick in Easter basket candy. Number one is the chocolate bunny. Over 90 million are produced every year. Number two is the appalling, but popular, marshmallow Peep, which can be purchased as chicks, rabbits, and eggs. The jelly bean trails behind in third place, but it's nothing to be ashamed of. In fact, every Easter, we munch up 16 billion of them.

Jelly beans are believed to be a hybrid of two popular candies that date back hundreds of years. The first, Turkish delights, are a powdered sugar covered chewy jelly candy that originated in Turkey. How can we forget the tempting treat that was

1:00 Edmund's downfall in *The Lion, the Witch, and the Wardrobe* by C.S. Lewis? Although the actual origin of Turkish Delight is a mystery, a common story tells of an 18th Century Turkish confectioner, Bekir Effendi, who invented a jelly-like candy flavored with rosewater and dusted with powdered sugar. The second part of the hybrid is the Jordan almond. Jordan almonds are almonds that are coated in a crunchy sugar shell. The original Jordan almonds which date back to ancient Rome, were in the form of nuts coated with honey. By the 15th century, after sugar was introduced to Europe, the nuts were coated with the hard shiny sugar casing they have now. The casing is made by using a process called panning. During panning, up to 30 different layers of sugar syrup are applied one upon another with each layer being only one-tenth the width of a human hair. What results is a crunchy shell usually colored in pastel colors.

If you combine the chewy center of Turkish delight with the crunchy coating of a Jordan almond, you have something similar to the modern day Jelly bean.

The first known reference to jelly beans in history was in the late 1800s when William Schrafft, a confectioner from Boston, Massachusetts, encouraged Americans to send

2:00 jelly beans to soldiers fighting in the Civil War. By 1905, jelly beans were a popular penny candy and were sold for 9 cents a pound. They were even popular enough to have made it into Webster's dictionary. By 1915, the term jelly bean had even been used as a slang term meaning a weak and worthless male. In fact, the star of F. Scott Fitzgerald's 1920 short story, "The Jelly-Bean," is Jim Powell, an aimless pool-hall loafer. When Beatlemania broke out in 1964, it became known that George Harrison, one of the members of the Beatles, liked eating jelly beans. As a result, fans of the Beatles in the United States as well as those in the United Kingdom threw jelly beans at the band while they were onstage. Although jelly beans were popular in the early 1900s, it wasn't until the 1930s that they began to be associated with Easter. Remember that many people hid Easter eggs for children to find. Jelly beans were small, egg shaped candies.

In the mid-1960s, the Governor of California, Ronald Reagan, proclaimed that he loved jelly beans. In fact, he said that he used them to help kick his tobacco habit. For his 1981 Presidential inauguration, the Jelly Belly company sent two and a half tons of jelly beans to Washington D.C. The jelly beans were colored red, white and

3:00 blue as a symbol of the United States. Jelly Belly even created a special blueberry flavor jelly bean specifically for President Reagan. Although it was a sweet gesture, Reagan did not particularly like any of those flavors. At this time his favorite flavor was black licorice. While he was the President of the United States from 1981 to 1989, he always had jelly beans nearby.

Most people, it turns out, aren't like President Reagan. A majority of people can't stand the licorice ones, and even the blue ones aren't a favorite. If you were going to

pick one color from the handful of beans in your basket, it will probably be red. Everyone seems to like red and pink candies the best. According to University of Oxford psychologist Charles Spence, this is most likely due to the way our sense of taste is affected by the food's color itself. Red jelly beans may be a favorite simply because we tend to experience red foods as sweeter than they actually are. Conversely, we tend to experience green foods as more sour.

4:00 What are jelly beans made of? We know that they are very sweet, so it is not surprising that the main ingredients are sugar, corn syrup, and starch. Starch is what causes the bean to have such a gelatinous, chewy texture. The panning process is still used to create the thin candy coating. Flavoring ingredients are added to create the many different flavors. These ingredients can be natural or artificial depending on the manufacturer. Often an emulsifying agent is added to the candy to keep the texture consistent. One popular emulsifying agent is lecithin. Lecithin is a generic term to designate fatty substances in animal and plant tissues that are used for smoothing food textures. Edible beeswax may also be used to coat the beans to keep them from sticking together or melting in hot, humid conditions. Jelly beans are now available in dozens of flavors. Of course the favorite is still cherry, but there is buttered popcorn, toasted marshmallow, mango, maple syrup, Dr. Pepper, and bacon just to name a few. One company, Jelly Belly, packages a version of beans for Harry Potter lovers called Bertie Bott's Every Flavour Beans. Along with cherry, lemon, and cinnamon, this package also includes surprise extras like black pepper, booger, dirt, earthworm, etc.

5:00 The Jelly Belly company was founded in Belleville, Illinois, by 24-year-old Gustav Goelitz. His company, the Goelitz Confectionery Company made many different types of candy including candy corn and royal buttercreams. His descendants produced penny candies in the 1960s including tangerine slices and spice drops as well as jellybeans. In 1965, they began infusing flavors into the centers of their Goelitz Mini Jelly Beans. These mini beans were discovered in 1973 by Ronald Reagan. He wrote

the company stating that he could hardly start a meeting or make a decision without passing the jar of jelly beans. In 1976, David Klein started a distribution company called Garvey Nut in Temple City, California. He came up with an idea for a new kind of jelly bean he named Jelly Belly and contracted with the Goelitz Company to make them for him. Jelly Belly jelly beans were introduced in 1976 in just eight colors and flavors. These flavors included Root Beer, Green Apple, Licorice, Cream Soda, Lemon, Tangerine, Verry Cherry and Grape. After only 4 years in business, Klein and his partner sold Jelly Belly to the Goelitz Company for nearly 5 million dollars in 1980. The Goelitz Company expanded the colors and flavors to 40 types and soon relocated to Fairfield, California. In 1986, they began offering tours of their factory. The

6:00   company continued to grow and opened a second plant in Pleasant Prairie, just outside of Kenosha, Wisconsin. The company was then renamed the Jelly Belly Candy Company. This plant also offered tours to the public. The Jelly Belly Express in Pleasant Prairie takes visitors on a train ride through the factory. They even play a game with riders called Bean Boozled. This game offers 10 lookalike pairs of unnamed flavors. The only way to find out the flavor is to take a bite! According to the company, one ounce (25 pieces) contains about 100 calories, which you can dance off in about 15 minutes, so they aren't even terrible fattening.

Jelly Beans continue to be popular even today, and with more than 100 flavors to choose from , their popularity is sure to continue Every year, bean fans consume enough jelly beans to circle the world five times!

One surprising fact is that along with Earth Day on April 22, it is also National Jelly Bean Day. Another is that Jelly Beans have also been turned into art. In the art video, *The Time You Have – in Jelly Beans*, artist Ze Frank portrays the days of the average human life with 28,835 jelly beans! Jelly beans are also featured in various video games and even movies.

7:00   Who knew that the amazing little sugary bean would be such a popular treat?

UIL LISTENING CONTEST - GRADES 5/6
FALL/WINTER DISTRICT 2023-2024

"Emily Warren Roebling – The First Woman Chief Engineer"
Answer Key

1. B
2. A
3. C
4. A
5. C
6. C
7. D
8. B
9. A
10. C
11. B
12. B
13. D

14. A
15. D
16. C
17. A
18. D
19. False
20. False
21. True
22. True
23. True
24. False
25. True

UIL LISTENING CONTEST - GRADES 5/6
SPRING DISTRICT 2023-2024
"Jelly Beans"

Now that spring is here, one of the main holidays of the season will be Easter. In fact, research shows that Easter is one of the most profitable holidays of the year. Since 2010, the amount of money Americans spend on Easter shopping per person has increased from $118.60 to $179.70 and is expected to be the highest on record this year at $20.8 billion. That's a lot of money spent on one holiday. One of the major expenses is the creation of Easter baskets, and no Easter basket is complete without a sprinkling of jelly beans. To be fair, jelly beans aren't America's top pick in Easter basket candy. Number one is the chocolate bunny. Over 90 million are produced every year. Number two is the appalling, but popular, marshmallow Peep, which can be purchased as chicks, rabbits, and eggs. The jelly bean trails behind in third place, but it's nothing to be ashamed of. In fact, every Easter, we munch up 16 billion of them.

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If you combine the chewy center of Turkish delight with the crunchy coating of a Jordan almond, you have something similar to the modern day Jelly bean.

The first known reference to jelly beans in history was in the late 1800s when William Schrafft, a confectioner from Boston, Massachusetts, encouraged Americans to send **2:00** jelly beans to soldiers fighting in the Civil War. By 1905, jelly beans were a popular penny candy and were sold for 9 cents a pound. They were even popular enough to have made it into Webster's dictionary. By 1915, the term jelly bean had even been used as a slang term meaning a weak and worthless male. In fact, the star of F. Scott Fitzgerald's 1920 short story, "The Jelly-Bean," is Jim Powell, an aimless pool-hall loafer. When Beatlemania broke out in 1964, it became known that George Harrison, one of the members of the Beatles, liked eating jelly beans. As a result, fans of the Beatles in the United States as well as those in the United Kingdom threw jelly beans at the band while they were onstage. Although jelly beans were popular in the early 1900s, it wasn't until the 1930s that they began to be associated with Easter. Remember that many people hid Easter eggs for children to find. Jelly beans were small, egg shaped candies.

In the mid-1960s, the Governor of California, Ronald Reagan, proclaimed that he loved jelly beans. In fact, he said that he used them to help kick his tobacco habit. For his 1981 Presidential inauguration, the Jelly Belly company sent two and a half tons of jelly beans to Washington D.C. The jelly beans were colored red, white and **3:00** blue as a symbol of the United States. Jelly Belly even created a special blueberry flavor jelly bean specifically for President Reagan. Although it was a sweet gesture, Reagan did not particularly like any of those flavors. At this time his favorite flavor was black licorice. While he was the President of the United States from 1981 to 1989, he always had jelly beans nearby.

Most people, it turns out, aren't like President Reagan. A majority of people can't stand the licorice ones, and even the blue ones aren't a favorite. If you were going to

pick one color from the handful of beans in your basket, it will probably be red. Everyone seems to like red and pink candies the best. According to University of Oxford psychologist Charles Spence, this is most likely due to the way our sense of taste is affected by the food's color itself. Red jelly beans may be a favorite simply because we tend to experience red foods as sweeter than they actually are. Conversely, we tend to experience green foods as more sour.

4:00 What are jelly beans made of? We know that they are very sweet, so it is not surprising that the main ingredients are sugar, corn syrup, and starch. Starch is what causes the bean to have such a gelatinous, chewy texture. The panning process is still used to create the thin candy coating. Flavoring ingredients are added to create the many different flavors. These ingredients can be natural or artificial depending on the manufacturer. Often an emulsifying agent is added to the candy to keep the texture consistent. One popular emulsifying agent is lecithin. Lecithin is a generic term to designate fatty substances in animal and plant tissues that are used for smoothing food textures. Edible beeswax may also be used to coat the beans to keep them from sticking together or melting in hot, humid conditions. Jelly beans are now available in dozens of flavors. Of course the favorite is still cherry, but there is buttered popcorn, toasted marshmallow, mango, maple syrup, Dr. Pepper, and bacon just to name a few. One company, Jelly Belly, packages a version of beans for Harry Potter lovers called Bertie Bott's Every Flavour Beans. Along with cherry, lemon, and cinnamon, this package also includes surprise extras like black pepper, booger, dirt, earthworm, etc.

5:00 The Jelly Belly company was founded in Belleville, Illinois, by 24-year-old Gustav Goelitz. His company, the Goelitz Confectionery Company made many different types of candy including candy corn and royal buttercreams. His descendants produced penny candies in the 1960s including tangerine slices and spice drops as well as jellybeans. In 1965, they began infusing flavors into the centers of their Goelitz Mini Jelly Beans. These mini beans were discovered in 1973 by Ronald Reagan. He wrote

the company stating that he could hardly start a meeting or make a decision without passing the jar of jelly beans. In 1976, David Klein started a distribution company called Garvey Nut in Temple City, California. He came up with an idea for a new kind of jelly bean he named Jelly Belly and contracted with the Goelitz Company to make them for him. Jelly Belly jelly beans were introduced in 1976 in just eight colors and flavors. These flavors included Root Beer, Green Apple, Licorice, Cream Soda, Lemon, Tangerine, Verry Cherry and Grape. After only 4 years in business, Klein and his partner sold Jelly Belly to the Goelitz Company for nearly 5 million dollars in 1980. The Goelitz Company expanded the colors and flavors to 40 types and soon relocated to Fairfield, California. In 1986, they began offering tours of their factory. The

6:00   company continued to grow and opened a second plant in Pleasant Prairie, just outside of Kenosha, Wisconsin. The company was then renamed the Jelly Belly Candy Company. This plant also offered tours to the public. The Jelly Belly Express in Pleasant Prairie takes visitors on a train ride through the factory. They even play a game with riders called Bean Boozled. This game offers 10 lookalike pairs of unnamed flavors. The only way to find out the flavor is to take a bite! According to the company, one ounce (25 pieces) contains about 100 calories, which you can dance off in about 15 minutes, so they aren't even terrible fattening.

Jelly Beans continue to be popular even today, and with more than 100 flavors to choose from , their popularity is sure to continue Every year, bean fans consume enough jelly beans to circle the world five times!

One surprising fact is that along with Earth Day on April 22, it is also National Jelly Bean Day. Another is that Jelly Beans have also been turned into art. In the art video, *The Time You Have – in Jelly Beans*, artist Ze Frank portrays the days of the average human life with 28,835 jelly beans! Jelly beans are also featured in various video games and even movies.

7:00   Who knew that the amazing little sugary bean would be such a popular treat?

A+ ACADEMICS

University Interscholastic League

Listening
grades 5 & 6

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

UIL LISTENING CONTEST - GRADES 5/6
SPRING DISTRICT 2023-2024
"Jelly Beans"

1. What is America's number 1 Easter treat?
   A. jelly beans
   B. colored eggs
   C. marshmallow Peeps
   D. chocolate bunnies

2. Jelly beans are believed to be a hybrid of
   A. Turkish Delight and raspberry jelly
   B. M&Ms and candy corn
   C. Turkish Delight and Jordan almonds
   D. Jordan almonds and M&Ms

3. Jordan almonds were originally nuts
   A. covered with honey
   B. dipped in chocolate
   C. doused with powdered sugar
   D. baked into beeswax

4. The first known jelly beans in history were in the late 1800s created by William Schrafft, a confectioner in
   A. London, England
   B. Boston, Massachusetts
   C. Leningrad, Turkey
   D. Washington D.C.

5. Ronald Reagan's favorite color of jellybean when he was President was _____.
   A. Red
   B. Purple
   C. Blue
   D. Black

6. What causes the bean to have such a gelatinous, chewy texture?
   A. sugar
   B. starch
   C. gelatin
   D. corn syrup

7. Who founded the Jelly Belly Company?
   A. Gustav Goelitz
   B. David Klein
   C. Ze Frank
   D. Garvey Nutt

8. How many calories do 25 pieces of Jelly Belly jelly beans contain?
   A. 150
   B. 25
   C. 75
   D. 100

9. In what year were Jelly Belly jelly beans first sold to the public?
   A. 1981
   B. 1969
   C. 1976
   D. 2005

10. The original Turkish Delight is said to be flavored with
   A. cherries
   B. honey
   C. rosewater
   D. tangerines

11. Who was the star of F. Scott Fitzgerald's 1920 short story, "The Jelly-Bean"?
   A. Charles Spence
   B. Jim Powell
   C. George Harrison
   D. Charlie Chapman

12. What color jelly bean seems to be the favorite of the general public?
   A. Green
   B. Blue
   C. Yellow
   D. Red

13. What process produces the thin sugary coating on the jelly bean?
   A. panning
   B. emulsifying
   C. gelling
   D. layering

14. Where was the first Jelly Belly company founded?
   A. Pleasant Prairie, Wisconsin
   B. Belleville, Illinois
   C. Temple City, California
   D. Boston, Massachusetts

15. Which of these flavors was NOT one of the original Jelly Belly flavors?
   A. root beer
   B. licorice
   C. orange
   D. lemon

16. National Jelly Bean Day shares the date with
   A. Easter
   B. Earth Day
   C. Valentine's Day
   D. National Egg Day

17. What company did David Klein start in 1986?
   A. Jelly Belly
   B. Garvey Nut
   C. Bean Boozled
   D. Confectionary Creations

18. According to University of Oxford psychologist Charles Spence, which color of jelly beans would you be attracted to if you wanted something sour?
   A. green
   B. orange
   C. blue
   D. pink

True/False

19. By 1905, jelly beans were such a popular penny candy that they even made it into Webster's dictionary.

20. When Beatlemania broke out in 1964, it became known that George Harrison, one of the members of the Beatles, disliked eating jelly beans causing angry fans to throw jelly beans at the band while they were onstage.

21. Every year, bean fans consume enough jelly beans to circle the world five times!

22. In the art video, *The Time You Have – in Jelly Beans*, artist Ze Frank DeGrasse portrays the days of the average human life with 1,628,835 jelly beans!

23. The Jelly Belly Express in Pleasant Prairie takes visitors on a train ride through the factory in which they play a game with 10 lookalike pairs of unnamed flavors that can only be identified by taking a bite!

24. While he was the President of the United States from 1981 to 1989, Ronald Reagan always had jelly beans nearby to help him kick his tobacco habit.

25. Since 2010, the amount of money Americans spend on Easter shopping per person has increased from $118.60 to $179.70.

UIL LISTENING CONTEST - GRADES 5/6
SPRING DISTRICT 2023-2024
"Jelly Beans"
Answer Key

1. D
2. C
3. A
4. B
5. D
6. B
7. A
8. D
9. C
10. C
11. B
12. D
13. A

14. B
15. C
16. B
17. A
18. A
19. True
20. False
21. True
22. False
23. True
24. False
25. True

FOR GRADER USE ONLY
Score Test Below:

_____ Initials_____

_____ Initials_____

Papers contending to place:

_____ Initials_____

UIL

University Interscholastic League
A+ Maps/Graphs/Charts Contest • Answer Sheet

Write your contestant number in the upper right corner, and circle your grade below.
Circle Grade Level: 5 6 7 8

1. A	B	C	D		26. T	F			51. A	B	C	D
2. A	B	C	D		27. T	F			52. A	B	C	D
3. A	B	C	D		28. T	F			53. A	B	C	D
4. A	B	C	D		29. T	F			54. A	B	C	D
5. A	B	C	D		30. T	F			55. A	B	C	D
6. A	B	C	D		31. A	B	C	D	56. T	F		
7. A	B	C	D		32. A	B	C	D	57. T	F		
8. A	B	C	D		33. A	B	C	D	58. T	F		
9. A	B	C	D		34. A	B	C	D	59. T	F		
10. A	B	C	D		35. A	B	C	D	60. T	F		
11. A	B	C	D		36. A	B	C	D	61. A	B	C	D
12. A	B	C	D		37. A	B	C	D	62. A	B	C	D
13. A	B	C	D		38. A	B	C	D	63. A	B	C	D
14. A	B	C	D		39. A	B	C	D	64. A	B	C	D
15. A	B	C	D		40. A	B	C	D	65. A	B	C	D
16. A	B	C	D		41. T	F			66. A	B	C	D
17. A	B	C	D		42. T	F			67. A	B	C	D
18. A	B	C	D		43. T	F			68. A	B	C	D
19. A	B	C	D		44. T	F			69. A	B	C	D
20. A	B	C	D		45. T	F			70. A	B	C	D
21. A	B	C	D		46. A	B	C	D	71. T	F		
22. A	B	C	D		47. A	B	C	D	72. T	F		
23. A	B	C	D		48. A	B	C	D	73. T	F		
24. A	B	C	D		49. A	B	C	D	74. T	F		
25. A	B	C	D		50. A	B	C	D	75. T	F		

University Interscholastic League
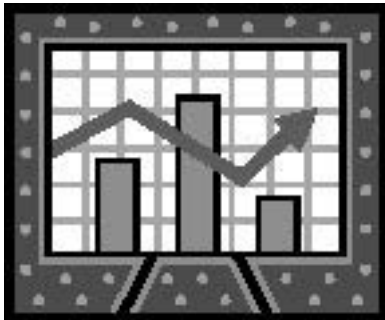
Maps, Graphs & Charts

grades 5 & 6

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Asia Political Relief Map

1. The Strait of Malacca separates which countries?
   a. Malaysia and Thailand
   b. Vietnam and the Philippines
   c. Indonesia and Papua New Guinea
   d. Malaysia and Indonesia

2. What is the capital of Israel?
   a. Damascus
   b. Brunei
   c. Ankara
   d. Jerusalem

3. Which of the following countries does not have a part of the Himalayas within its borders?
   a. India
   b. Nepal
   c. Laos
   d. Bhutan

4. Which of the following is not a country in the Arabian Peninsula?
   a. Qatar
   b. Yemen
   c. Sanaa
   d. Oman

5. The Dead Sea is located between which two countries?
   a. Israel and Palestine
   b. Turkey and Iraq
   c. Jordan and Israel
   d. Lebanon and Syria

6. Which country in Asia is an archipelago?
   a. Indonesia
   b. Mongolia
   c. North Korea
   d. Turkey

7. The Caspian Sea is located between which two countries in Asia?
   a. Iran and Iraq
   b. Russia and China
   c. Kazakhstan and Uzbekistan
   d. Turkmenistan and Azerbaijan

8. The Mekong River does not flow through which of the following countries?
   a. Vietnam
   b. Japan
   c. Thailand
   d. China

9. What country has two capitals?
   a. Kyrgyzstan
   b. Mongolia
   c. Sri Lanka
   d. Syria

10. Which of the following cities has a population of between 500,000 to 1,000,000 and is the farthest east?
    a. Kandahar, Afghanistan
    b. Sapporo, Japan
    c. Mecca, Saudi Arabia
    d. Chita, Russia

11. What do the curved black lines running vertically across the map indicate?
    a. Latitude
    b. Longitude
    c. Time Zones
    d. None of the above

12. Which of the following features are displayed on the political relief map?
    a. Climates zones
    b. Elevations
    c. Land Cover Type
    d. None of the above

13. Which country is not located on the mainland?
    a. Russia
    b. Sri Lanka
    c. Kazakhstan
    d. Thailand

14. The Gobi Desert is located in which country?
    a. Mongolia   c. Cambodia
    b. Iran   d. Pakistan

15. What country's capital can be found at 38.5° N, 68.7° E?
    a. Turkey
    b. China
    c. Tajikistan
    d. None of the above

Renewable Energy Sites By County

Legend:
- Highway
- River
- Geothermal
- Solar
- Wind
- Hydro
- Wind

Counties: Smoke, Plum, Tursa, Snake, Arias, Cortez, Bloom, Strong River, Baja, Moon

IH 46, IH 22
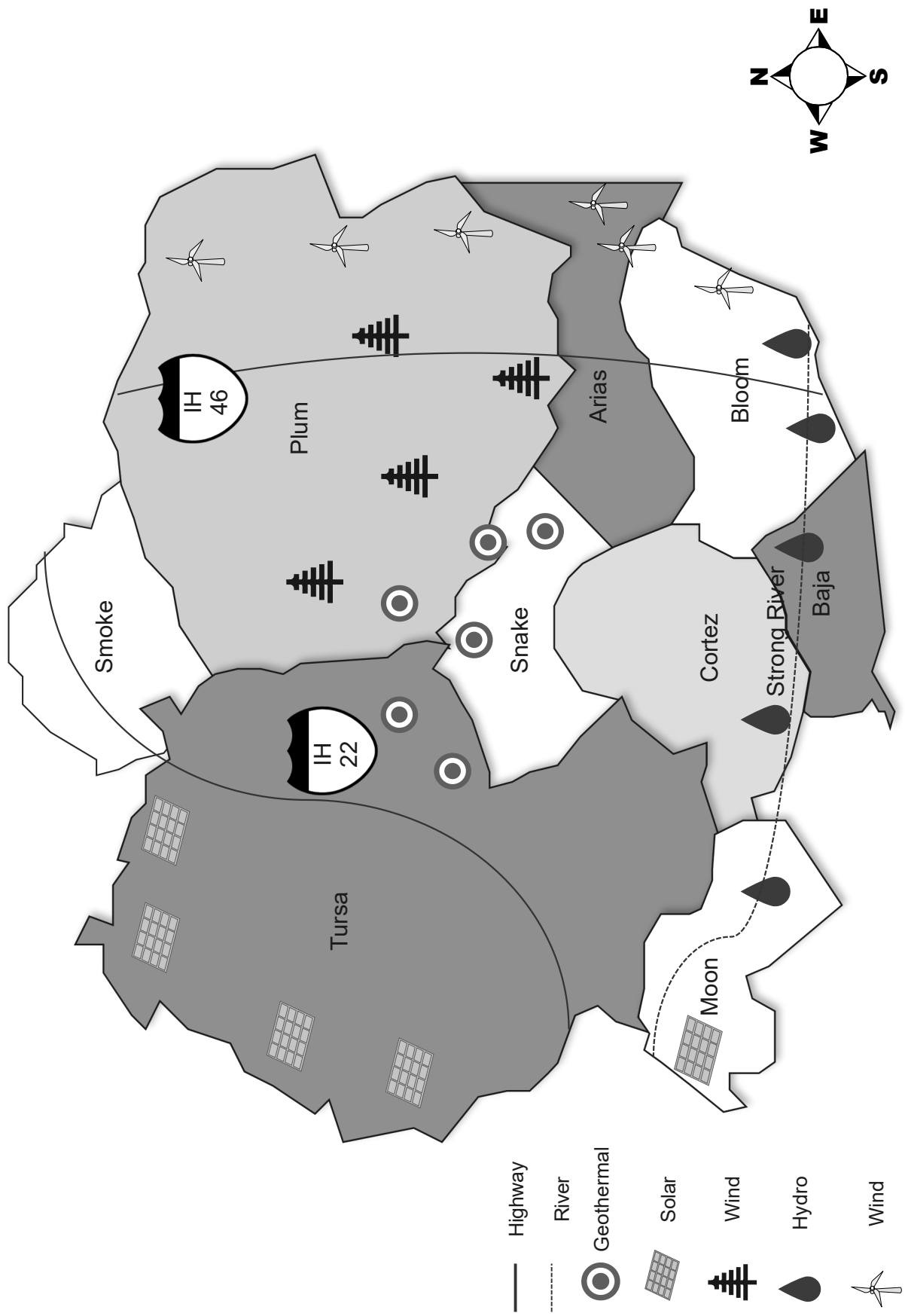
Renewable Energy Sites by County

16. How many types of renewable energy are shown on the map?
    a. 1
    b. 3
    c. 5
    d. 7

17. Which of the following runs east to west?
    a. IH 22
    b. IH 46
    c. Strong River
    d. West River

18. How many solar energy sites are indicated on the map?
    a. 1
    b. 3
    c. 5
    d. 7

19. Which county has the greatest variety of energy producing sites?
    a. Plum
    b. Tursa
    c. Cortez
    d. Baja

20. Which of the following counties stretches the farthest north?
    a. Baja
    b. Moon
    c. Snake
    d. Bloom

21. How many counties have geothermal sites?
    a. 1
    b. 3
    c. 5
    d. 7

22. What type of energy site can be found across the most different counties?
    a. Geothermal
    b. Solar
    c. Wind
    d. Hydro

23. Which type of site produces the most energy?
    a. Solar
    b. Wind
    c. Hydro
    d. Not indicated on the map

24. How many types of energy sites are located in Smoke County?
    a. 0
    b. 1
    c. 2
    d. 3

25. Which county has the highest number of renewable energy sites?
    a. Cortez
    b. Tursa
    c. Plum
    d. Snake

TRUE/FALSE

26. All of the wind sites are located on the west edge of the map.

27. Both of the highways intersect the river.

28. All of the wood power sites are located in two counties.

29. According to the legend, one inch equals 5 miles on the map.

30. Bloom is the only country to have both a hydro and a wind site.

Energy Generated in Terawatt Hours
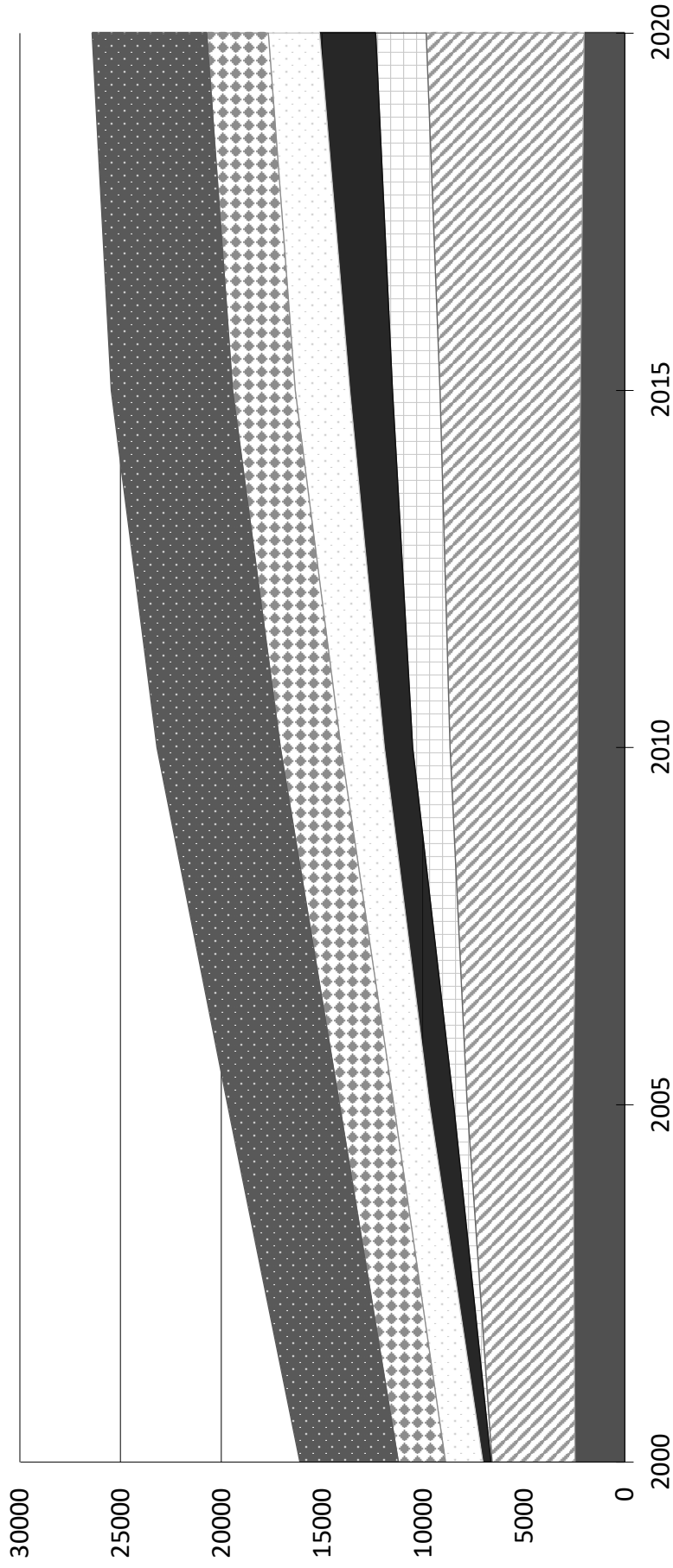
Nuclear | Gas and Other Fossils | Coal | Solar | Geothermal | Hyrdopower | Wind

Energy Generated in Terawatt Hours

31. How many categories of energy are included in the graph?
    a. 5
    b. 7
    c. 9
    d. 12

32. What does the x-axis represent?
    a. Energy Type
    b. The year
    c. Total terawatt hours
    d. None of the above

33. What span of time is covered by this graph?
    a. 5 years
    b. 10 years
    c. 15 years
    d. 20 years

34. In what year did coal output hit its peak?
    a. 2020
    b. 2015
    c. 2010
    d. 2005

35. Which type of energy had the most output in a single year?
    a. Coal
    b. Gas and Other Fossils
    c. Nuclear
    d. Geothermal

36. Energy for all categories combined was lowest in what year?
    a. 2020
    b. 2015
    c. 2010
    d. 2005

37. In 2000, what category of energy production had the least output?
    a. Solar
    b. Wind
    c. Hydropower
    d. Coal

38. How many categories of energy production had their highest output in 2020?
    a. 0
    b. 1
    c. 2
    d. 3

39. What does the darkest part of the graph represent?
    a. 2010
    b. 2020
    c. Hydropower
    d. Wind

40. In how many years did combined output exceed 15,000 terawatt hours?
    a. 0
    b. 1
    c. 3
    d. 5

TRUE/FALSE

41. Wind outproduced Solar every year.

42. Combined energy output peaked at 30,000 terawatt hours in a single year.

43. Solar in the only category that at least doubled in output in the time covered by the graph.

44. Gas and other fossils output increased every year.

45. Nuclear is the only category of energy production that had less output in 2020 than 2000.

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46. The deepest lake on the continent is located in what country?
    a. Russia
    b. China
    c. India
    d. Philippines

47. What is the climate type across most of Russia?
    a. Desert
    b. Subarctic
    c. Desert
    d. Mediterranean

48. Which of the following Asian countries exports the most oil?
    a. Kuwait
    b. Russia
    c. Iraq
    d. United Arab Emirates

49. How far is it from the capital of Iran to the city of Qom, Iran?
    a. About 25 miles
    b. About 80 miles
    c. About 130 miles
    d. About 190 miles

50. Which of the following countries has the highest population per square mile?
    a. China
    b. Singapore
    c. India
    d. Russia

51. Semi-desert and desert land cover can be found in what country?
    a. India
    b. Japan
    c. Borneo
    d. None of the above

52. What is the most populous city in China?
    a. Shanghai
    b. Xining
    c. Zibo
    d. Aksu

53. What do the purple lines on the land cover map indicate?
    a. Longitude lines
    b. Continent borders
    c. Country borders
    d. None of the above

54. Which of the following countries is on the Tropic of Cancer?
    a. Mongolia
    b. Oman
    c. Indonesia
    d. None of the above

55. What country's capital is located on the shores of the Persian Gulf?
    a. Kazakhstan
    b. Oman
    c. Japan
    d. None of the above

TRUE/FALSE

56. The Himalayas are shrinking about .2 inches per year.

57. Wetlands can be found in both southern and northern Asia.

58. During the winter the monsoon winds travel from north to south.

59. Hindu is the dominant religion in Nepal.

60. The population of Mysore, India is over 3,000,000.

Cost of Energy Types (In Dollars) Per Megawatt Hour

Legend: Hydro, Wind, Nuclear, Coal, Solar

Years: 2018, 2019, 2020, 2021, 2022

Y-axis: 0, 20, 40, 60, 80, 100, 120, 140
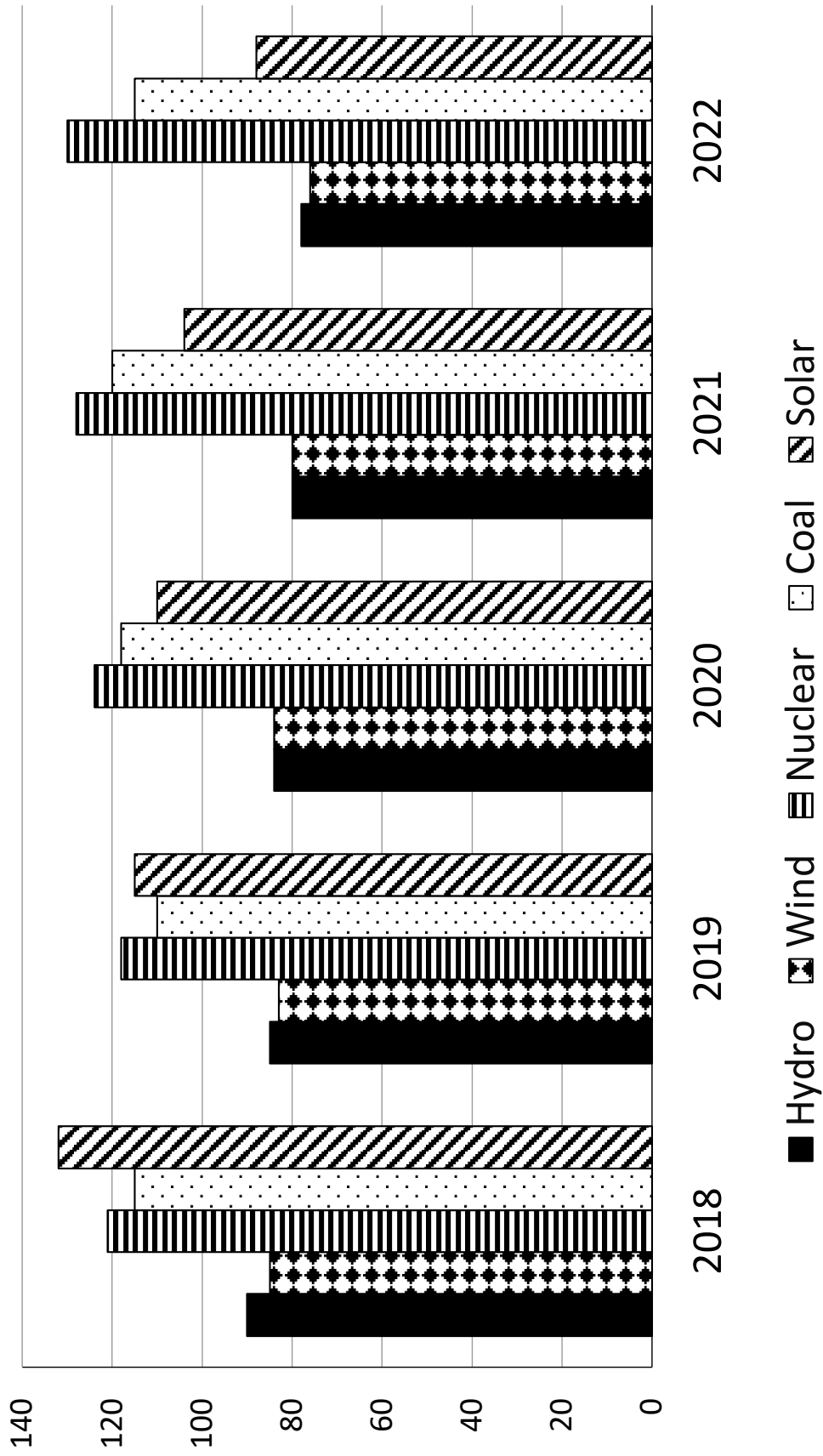
Cost of Energy Types Per Megawatt Hour

61. What is indicated on the y-axis?
    a. Cost in dollars
    b. Cost in energy
    c. Type of energy
    d. None of the above

62. What year was wind the most expensive?
    a. 2022
    b. 2021
    c. 2019
    d. 2018

63. Which type of energy dropped the most in cost from 2018 to 2022?
    a. Wind
    b. Nuclear
    c. Coal
    d. Solar

64. In what year did solar become less expensive than coal?
    a. 2018
    b. 2019
    c. 2020
    d. 2021

65. Which type of energy was the most expensive in the most years?
    a. Solar
    b. Coal
    c. Nuclear
    d. Hydro

66. In what year did coal reach its highest price?
    a. 2018
    b. 2019
    c. 2020
    d. 2021

67. Which of the following types of energy was the least expensive in 2020?
    a. Wind
    b. Nuclear
    c. Coal
    d. Solar

68. How many types of energy became less expensive every year?
    a. 0
    b. 1
    c. 2
    d. 3

69. What does the darkest column on the chart represent?
    a. Dollars
    b. Year
    c. Coal
    d. Solar

70. How many types of energy had their lowest price point in 2022?
    a. 0
    b. 1
    c. 3
    d. 4

TRUE/FALSE

71. The price of solar fluctuated the most over the amount of time covered in the chart.

72. The energy type with the highest cost for all years combined was coal.

73. Hydro was more expensive than wind every year.

74. The chart indicates how much each type of energy costs in dollars per gigawatt.

75. Solar was the most expensive energy source in the first year that is covered by the chart.

University Interscholastic League
A+ Maps/Graphs/Charts Contest • 2023-2024
5/6 Invitational
Answer Key

1. D	26. F	51. A
2. D	27. F	52. A
3. C	28. F	53. C
4. C	29. F	54. B
5. C	30. T	55. D
6. A	31. B	56. F
7. D	32. B	57. T
8. B	33. D	58. T
9. C	34. C	59. T
10. C	35. B	60. F
11. B	36. D	61. A
12. D	37. A	62. D
13. B	38. D	63. D
14. A	39. D	64. C
15. C	40. D	65. C
16. C	41. F	66. D
17. C	42. F	67. A
18. C	43. F	68. C
19. A	44. T	69. C
20. C	45. T	70. C
21. B	46. A	71. T
22. D	47. B	72. F
23. D	48. B	73. F
24. A	49. B	74. F
25. C	50. B	75. T

University Interscholastic League
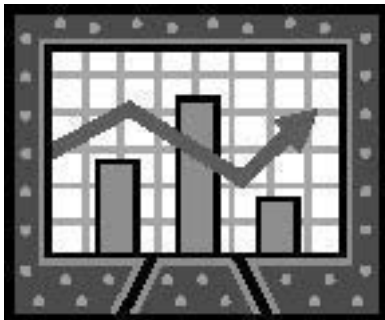
Maps, Graphs & Charts
grades 5 & 6

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

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North America Political Relief Map

1. What body of water is east of Belize?
   a. Pacific Ocean
   b. Beaufort Sea
   c. Caribbean Sea
   d. Bering Sea

2. Which country capital can be found near 10° N, 80° W?
   a. Managua
   b. Mexico City
   c. San Jose
   d. Panama City

3. Which country borders northwest Canada?
   a. United States
   b. Russia
   c. Greenland
   d. The Arctic

4. Greenland is a territory of what country?
   a. Denmark
   b. United States
   c. Russia
   d. It is an independent nation

5. Which of the following cities is on the west coast of the United States and is the largest?
   a. New York City
   b. San Diego
   c. Sacramento
   d. Portland

6. Which of the following cities is about 550 miles from the capital of the United States?
   a. New York City
   b. Little Rock
   c. Nashville
   d. Miami

7. In which country are the Interior Plains located?
   a. United States
   b. Canada
   c. Mexico
   d. None of the above

8. A seasonal lake can be found northeast of what city?
   a. Omaha
   b. Columbia
   c. Sacramento
   d. Boise

9. Which Canadian city can be found on the shores of Lake Winnipeg?
   a. Winnipeg
   b. Churchill
   c. Yellowknife
   d. None of the above

10. What is the largest country in North America by area?
    a. Canada
    b. United States
    c. Mexico
    d. Greenland

11. Which country do the Rocky Mountains not run through?
    a. Canada
    b. United States
    c. Mexico
    d. All of the above

12. Which country borders the eastern shores of the Gulf of California?
    a. United States
    b. Canada
    c. Mexico
    d. None of the above

13. The International Date Line runs through what body of water?
    a. Bering Strait
    b. Davis Strait
    c. Gulf of St. Lawrence
    d. None of the above

14. Canals can be found in which city?
    a. Spokane
    b. St. Paul
    c. Miami
    d. Boston

15. Which of the following has a disputed border?
    a. United States
    b. El Salvador
    c. Cuba
    d. None of the above

State College Campus

Main Office Building: 123 College Way
Hours Monday through Friday: 8am to 5pm
Note: Transcripts, Admissions and Financial Aid
are all located in the Main Office Building

N

Offices
11. Main Offices
Note: Individual academic
offices are located in
their respective academic
buildings.
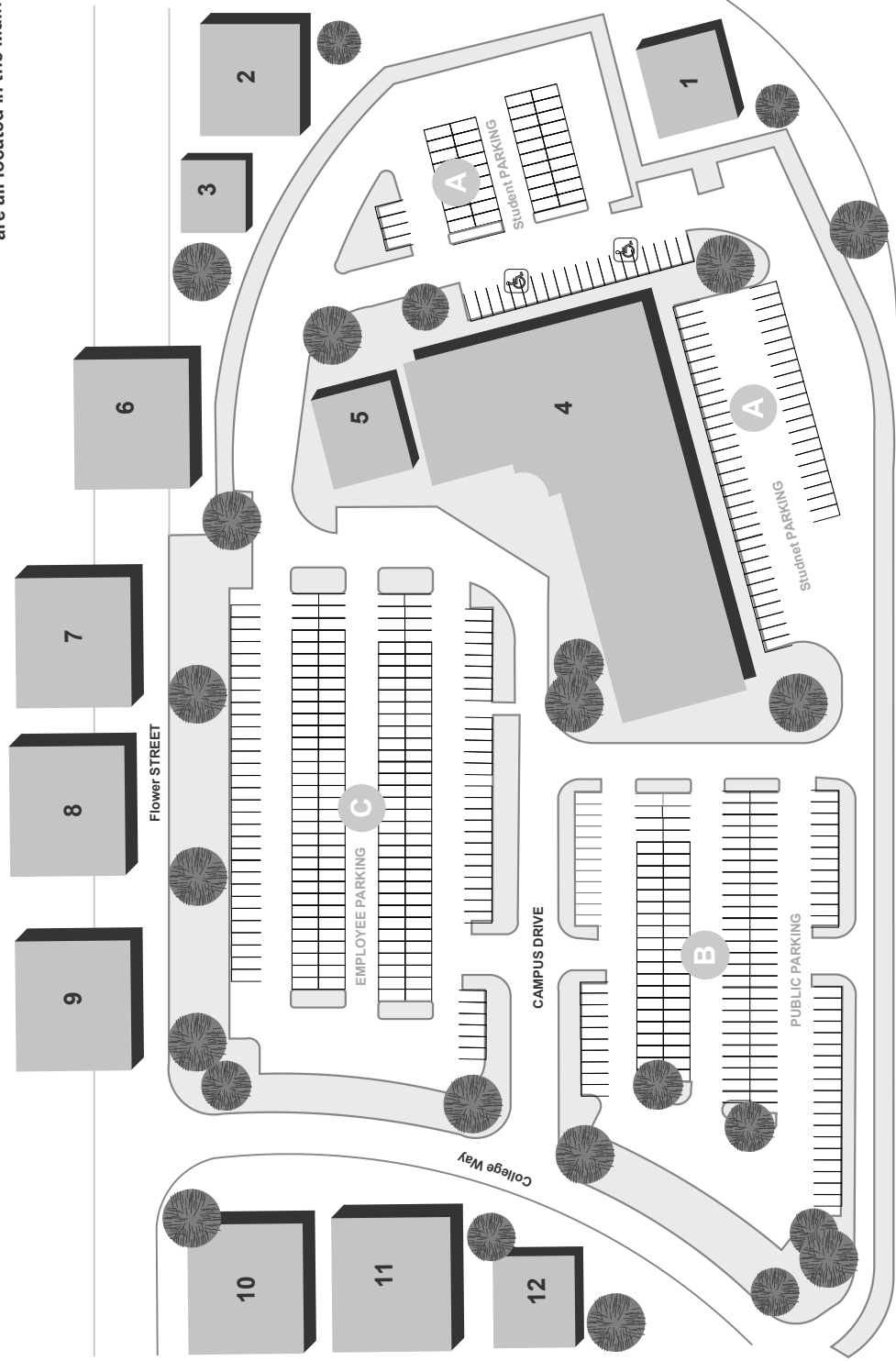
1/2 Mile to Miles Sports Complex

Student Life
4. University Union
5. Student Fitness Center
6. Student Dining Hall

Housing
2. Zappa Hall
3. Primm Hall
5. Mobius Hall

Academics
1. Art
7. Liberal Arts
8. Business
9. Sciences
10. Music
12. Media Arts

Flower STREET

Student PARKING

Studnet PARKING

EMPLOYEE PARKING

CAMPUS DRIVE

PUBLIC PARKING

College Way

James Blvd.

A

B

C

State College Campus

16. What parking lot is designated for campus employees?
    a. A
    b. B
    c. C
    d. All of the above

17. The sports complex is located where?
    a. .5 miles east of campus
    b. .5 miles west of campus
    c. 2 miles north of campus
    d. 2 miles south of campus

18. Which academic building is located the furthest south?
    a. Art
    b. Business
    c. Music
    d. Sciences

19. How many dining halls are indicated on the map?
    a. 0
    b. 1
    c. 3
    d. 5

20. The financial aid office is located in which building?
    a. University Union
    b. Primm Hall
    c. Main Office Building
    d. Zappa Hall

21. What type of building is Mobius Hall?
    a. Academic
    b. Student Life
    c. Office
    d. Housing

22. How far is it from public parking to the student dining hall?
    a. About .5 miles
    b. About 1 mile
    c. About 1.5 miles
    d. Scale is not indicated

23. What time does the main office close on Tuesdays?
    a. It is closed on Tuesdays
    b. 8 a.m.
    c. 5 p.m.
    d. Information not given

24. Which of the following goes by the most academic buildings?
    a. Campus Drive
    b. Flower Street
    c. College Way
    d. James Blvd.

25. How many housing buildings are south of the student dining hall?
    a. 0
    b. 1
    c. 2
    d. 3

TRUE/FALSE

26. Offices for the different academic disciplines are located in the main office.

27. The fitness center for students is located in the sports complex.

28. James Blvd. runs west and east.

29. The Media Arts building is further east than the Business academic building.

30. Public parking and employee parking can both be accessed from Campus Drive.

Fall 5/6 2023-2024

Bachelor's Degress Awarded Field of Study

Legend:
- Business & Management
- Behavioral & Social Sciences
- Humanities
- Health & Medical Sciences
- Other
- Natural Sciences
- Education
- Fine & Preforming Arts
- Engineering
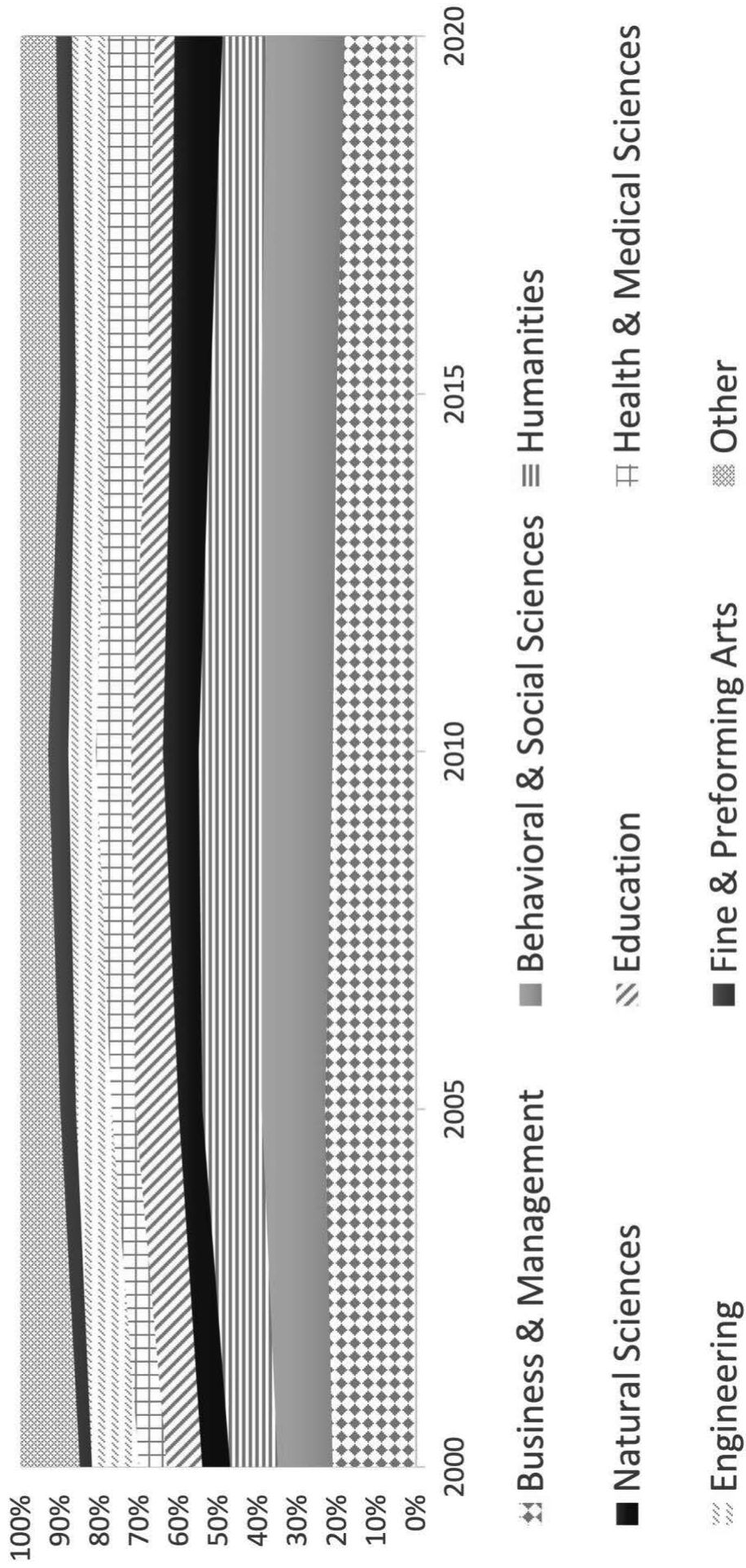
Bachelor's Degrees by Field of Study

31. What span of time is covered by the graph?
    a. 5 years
    b. 10 years
    c. 15 years
    d. 20 years

32. What does the y-axis represent?
    a. Number in millions of total degrees awarded
    b. Number in millions of degrees awarded in each field
    c. The percentage of degrees awarded
    d. The year the degrees were awarded

33. What year were the most degrees for all fields of study combined awarded?
    a. 2020
    b. 2015
    c. 2000
    d. Information not indicated

34. What year did education drop the most compared to the previous year?
    a. 2020
    b. 2015
    c. 2010
    d. 2005

35. Which of the following fields of study had the lowest percentage the most years?
    a. Engineering
    b. Business & Management
    c. Humanities
    d. Health & Medial Sciences

36. How many fields of study groups are represented?
    a. 5
    b. 7
    c. 9
    d. 11

37. How many fields of study reached their highest percentage in 2020?
    a. 0
    b. 1
    c. 3
    d. 4

38. Which field of study dropped the most in 2020 compared to 2000?
    a. Natural Sciences
    b. Education
    c. Fine & Preforming Arts
    d. Information not indicated

39. How many times did the Natural Sciences have a higher percentage than Health & Medical Sciences?
    a. 0
    b. 1
    c. 2
    d. 4

40. How many fields of study gained in percentage share every year indicated?
    a. 0
    b. 1
    c. 2
    d. 4

TRUE/FALSE

41. Business & Management was always the most popular choice.

42. Degrees awarded in Behavioral and Social Sciences increased the most over the time coved by the graph.

43. The darkest color on the graph represents the total number of students enrolled in the Natural Sciences.

44. The x-axis represents the year.

45. Fine & Preforming Arts percentages had the least amount of variation over the years.

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North America (Various Maps)

46. Which country receives the most exports from Guatemala?
    a. China
    b. United States
    c. El Salvador
    d. Honduras

47. What is the main type of land use in New Mexico?
    a. Urban
    b. Commercial Farming
    c. Subsistence farming
    d. Ranching or herding

48. Which U.S. state does the Colorado River flow through?
    a. Utah
    b. New Mexico
    c. Washington
    d. Oregon

49. Which of the following Canadian cities is the furthest north?
    a. Churchill
    b. Arviat
    c. Windsor
    d. Greenstone

50. Guyana is part of what North American Trade Organization?
    a. CAFTA-DR
    b. CARICOM
    c. NAFTA
    d. All of the above

51. What is the land cover type on Victoria Island.?
    a. Cropland
    b. Tundra
    c. Glacier
    d. Broadleaf forest

52. The state of Baja California receives how much rainfall per year?
    a. 0 to 10 inches per year
    b. 10 to 20 inches per year
    c. 20 to 40 inches per year
    d. Over 80 inches per year

53. Which of the following natural resources can be found on Ellesmere Island?
    a. Oil
    b. Gold
    c. Tin
    d. None of the above

54. How many Canadian provinces does The Trans-Canada Highway run through?
    a. 2
    b. 6
    c. 10
    d. 12

55. Which of the following cities has a population over 500,000 and can be found on the shores of Lake Athabasca?
    a. Vancouver
    b. Uranium City
    c. Surrey
    d. None of the above

TRUE/FALSE

56. Canada has more immigrants per 1,000 people than the United States.

57. The population of North America is above 600 million.

58. French is the most spoken language in Canada.

59. Potatoes are the only agricultural product to come out of Idaho.

60. Interstate Highway 65 runs through Nashville, Tennessee.

Fall 5/6 2023-2024

Center County College Enrollment Numbers

Legend:
- Center College
- Point Community College
- State College
- Smith Art School
- Permian Technical School
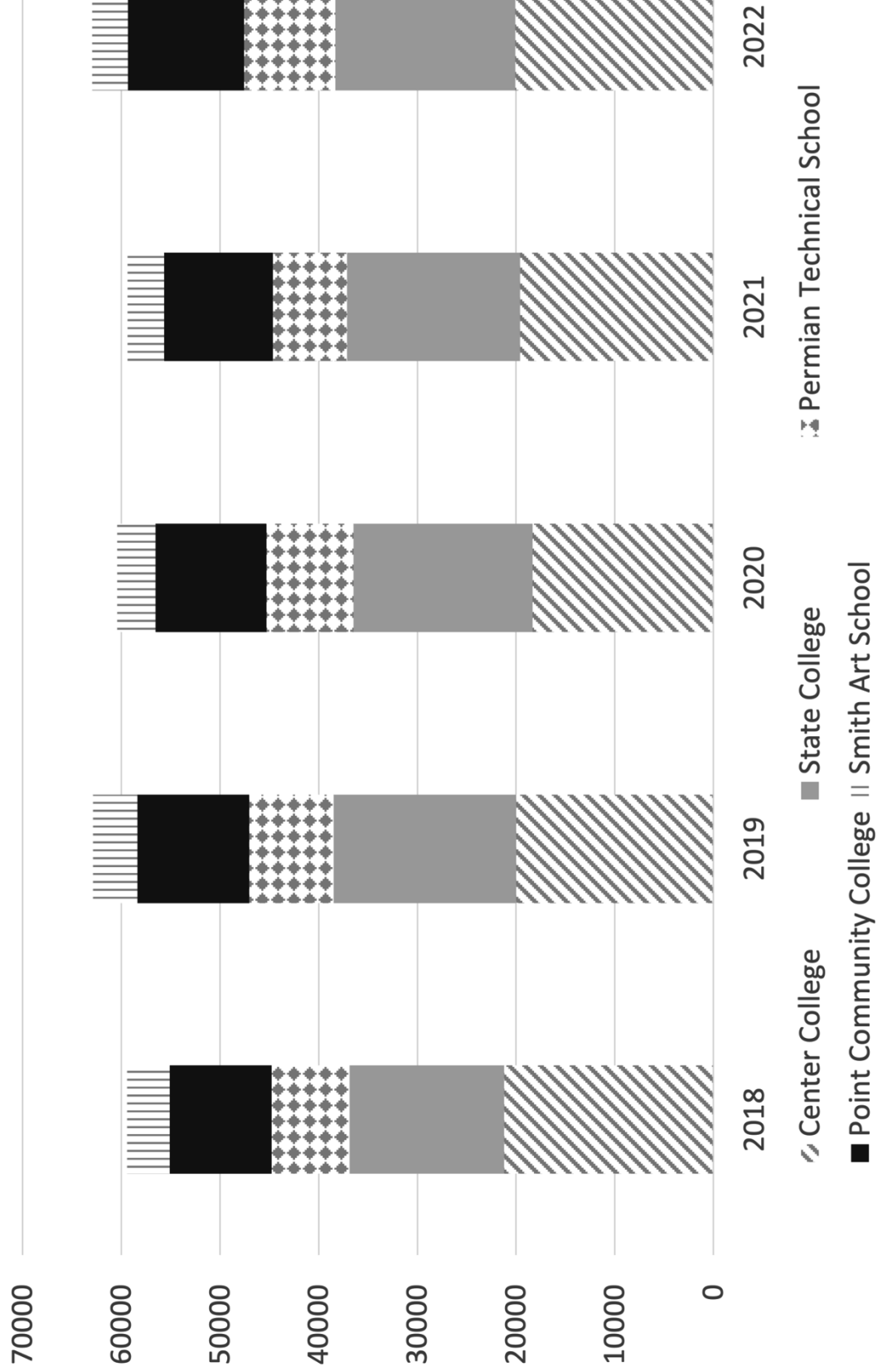
Enrollment Numbers

61. Which college had the highest enrollment in a single year?
    a. Center College
    b. State College
    c. Permian Technical School
    d. Point Community College

62. What year did the Smith Art School have its highest enrollment?
    a. 2017
    b. 2019
    c. 2020
    d. 2021

63. Which college had the highest total enrollment across all years combined?
    a. State College
    b. Permian Technical School
    c. Point Community College
    d. Smith Art School

64. What does the x-axis represent?
    a. Number of students
    b. Gender of Students
    c. The year
    d. None of the above

65. Which college had around 20,000 students enrolled in 2022??
    a. Smith Art School
    b. Center College
    c. State College
    d. Point Community College

66. Which college had the largest increase in enrollment from 2018 to 2019?
    a. Smith Art School
    b. Point Community College
    c. Permian Technical School
    d. State College

67. Approximately how many more students were enrolled across all colleges in 2019 compared to 2018?

    a. 1,000
    b. 3,000
    c. 6,000
    d. 9.000

68. Which college had the largest increase in enrollment from 2018 to 2022?
    a. Center College
    b. State College
    c. Permian Technical School
    d. Point Community College

69. What college had an increase in enrollment every year?
    a. Smith Art School
    b. State College
    c. Center College
    d. None of the above

70. In how many years did total enrollment exceed 60,000?
    a. 0
    b. 1
    c. 2
    d. 3

TRUE/FALSE

71. Enrollment at State College decrease each year from 2018 to 2022.

72. Smith Art School had the lowest enrollment every year.

73. Smith Art School had the lowest fluctuation in enrollment.

74. Center College had at least 20,000 students every year.

75. Each year, the combined enrollment of Center College and State College never reached more than 40,000 students.

University Interscholastic League
A+ Maps/Graphs/Charts Contest • 2023-2024
5/6 Fall
Answer Key

1. C	26. F	51. B
2. D	27. F	52. A
3. A	28. T	53. D
4. A	29. F	54. C
5. B	30. T	55. D
6. C	31. D	56. T
7. B	32. C	57. F
8. C	33. D	58. F
9. D	34. C	59. F
10. A	35. A	60. T
11. C	36. C	61. A
12. C	37. C	62. B
13. A	38. B	63. A
14. C	39. A	64. C
15. D	40. B	65. B
16. C	41. F	66. D
17. A	42. T	67. B
18. A	43. F	68. B
19. B	44. T	69. D
20. C	45. T	70. D
21. D	46. B	71. F
22. D	47. D	72. T
23. C	48. A	73. T
24. B	49. B	74. F
25. D	50. B	75. T

University Interscholastic League
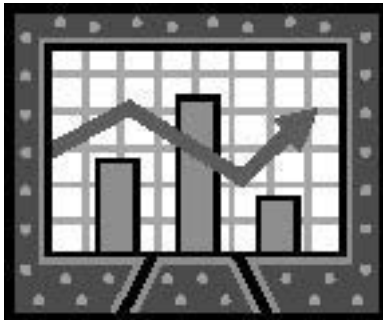
Maps, Graphs & Charts
grades 5 & 6

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

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Australia and Oceania Political Relief Map

1. How far is it from Sydney to Cairns?
   a. About 600 miles
   b. About 1,200 miles
   c. About 1,800 miles
   d. About 2,000 miles

2. Guam is a territory of what country?
   a. Australia
   b. Philippines
   c. United Kingdom
   d. United States

3. The Torres Strait separates Australia from which country?
   a. Indonesia
   b. Papua New Guinea
   c. New Zealand
   d. Vanuatu

4. Which of the following is the territorial capital of American Samoa?
   a. Pago Pago
   b. Samoa
   c. Port Vila
   d. None of the above

5. Which country is located south of the equator?
   a. Adamstown
   b. Marshall Islands
   c. Tonga
   d. None of the above

6. A continental boundary divides which country?
   a. Samoa
   b. China
   c. Indonesia
   d. Australia

7. Which of the following cities in Indonesia has the largest population?
   a. Merauke
   b. Palembang
   c. Sorong
   d. Manado

8. Chatham Island lies east of what country's mainland?
   a. Vietnam
   b. New Zealand
   c. Malaysia
   d. All of the above

9. Which country has the most cities with populations above 500,000?
   a. Australia
   b. Cambodia
   c. New Zealand
   d. Indonesia

10. Which of the following islands is located in the Gulf of Carpentaria?
    a. Wellesley Island
    b. Henderson Island
    c. McKean Island
    d. None of the above

11. The island of New Guinea is divided between which two countries?
    a. Australia and Indonesia
    b. Papua New Guinea and Indonesia
    c. Papua New Guinea and East Timor
    d. Indonesia and Palau

12. Bougainville Island is part of which country?
    a. Vanuatu
    b. Papua New Guinea
    c. Solomon Islands
    d. Australia

13. The North Island and South Island make up which country?
    a. Tonga
    b. Samoa
    c. Fiji
    d. New Zealand

14. Which river is located in northern Australia?
    a. Darling River
    b. Mitchell River
    c. Yangtze River
    d. Mekong River

15. Which country capital can be found at 9.4° S, 159.9° E?
    a. Funafuti
    b. Santa Isabel
    c. Honiara
    d. Moresby

County Fair

Weekends starting March 1st
through the end of the month.
Hours: Fridays: 4pm to 10pm
Saturday/Sunday: 12pm to 10pm
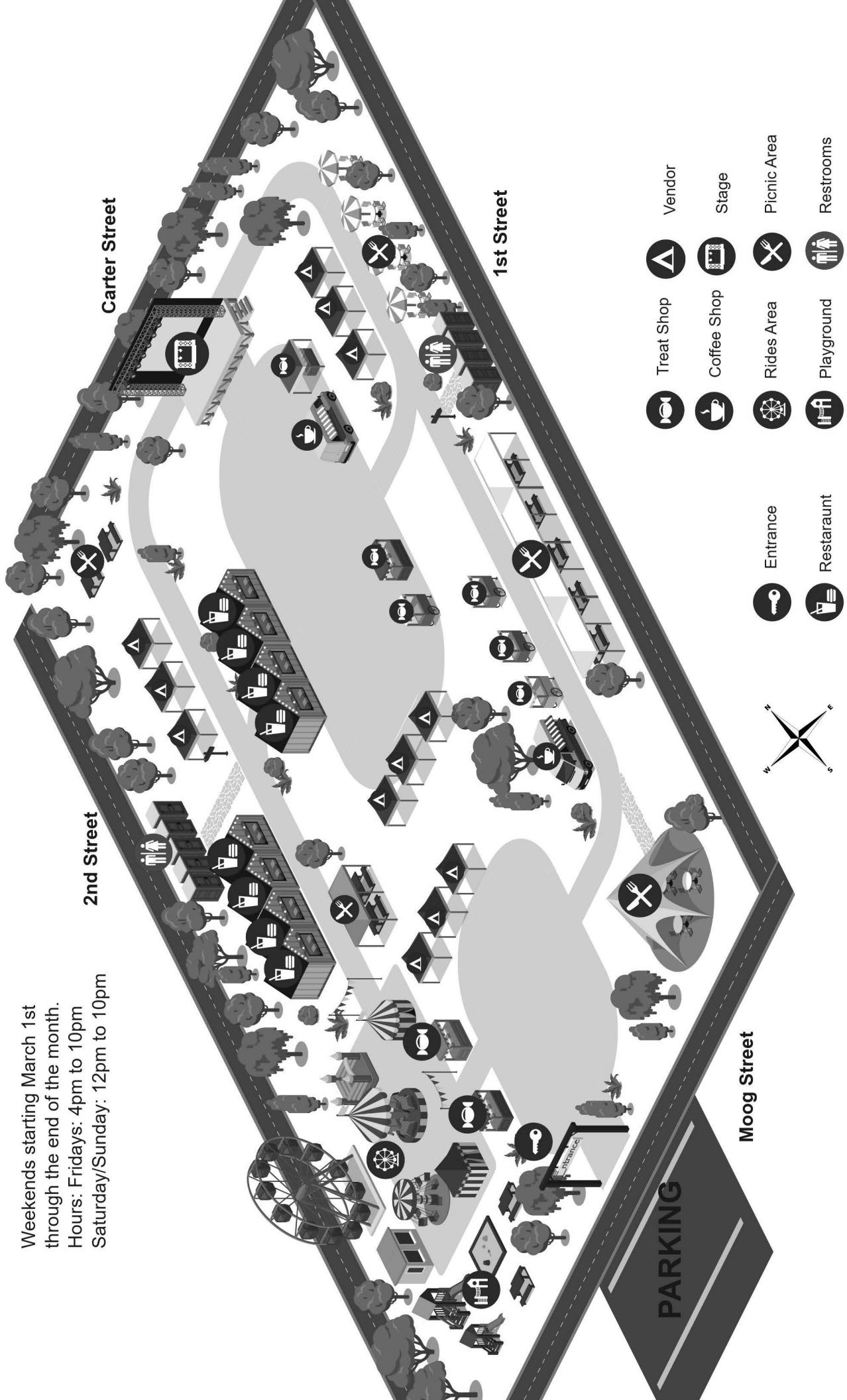
Carter Street

1st Street

2nd Street

Moog Street

PARKING

	Vendor		Treat Shop
	Stage		Coffee Shop
	Picnic Area		Rides Area
	Restrooms		Playground
	Entrance		Restaraunt

County Fair

16. Parking is located off of what street?
    a. 1st Street
    b. 2nd Street
    c. Carter Street
    d. Moog Street

17. What part of the map is the rides area located?
    a. Northeast
    b. Northwest
    c. Southeast
    d. Southwest

18. How many vendors are located north of the stage?
    a. 0
    b. 6
    c. 9
    d. 12

19. What time does the fair open on Sunday?
    a. 12 p.m.
    b. 4 p.m.
    c. 10 p.m.
    d. Not open

20. How many picnic areas are available?
    a. 1
    b. 3
    c. 5
    d. 7

21. Which of the following is located nearest to the entrance to the fair?
    a. Coffee Shop
    b. Treat Shop
    c. Restaurant
    d. Restrooms

22. Where is the playground located?
    a. Just south of the entrance
    b. Just north of the stage
    c. Just south of the rides area
    d. Just west of picnic area

23. All coffee shops are located south of which type of establishment?
    a. Vendor
    b. Treat Shop
    c. Restaurant
    d. Bathroom

24. What time do performances begin on the stage?
    a. 4 p.m.
    b. 12 p.m.
    c. Different times on different days
    d. Not indicated

25. How many one way streets are indicated on the map?
    a. 0
    b. 2
    c. 3
    d. 4

TRUE/FALSE

26. The fair continues through the end of April.

27. There are more vendors than any other kind of establishment indicated on the legend.

28. Bathrooms are located on the north and south end of the fair grounds.

29. The fair grounds are located south of Carter Street and east of 1st Street.

30. There are more treat shops than coffee shops.

County Fair Revenue

Revenue In Dollars

0, 5000, 10000, 15000, 20000, 25000, 30000, 35000, 40000, 45000

2019 2020 2021 2022 2023

Food ▨ Rides ⊞ Merchandise ■ Admission
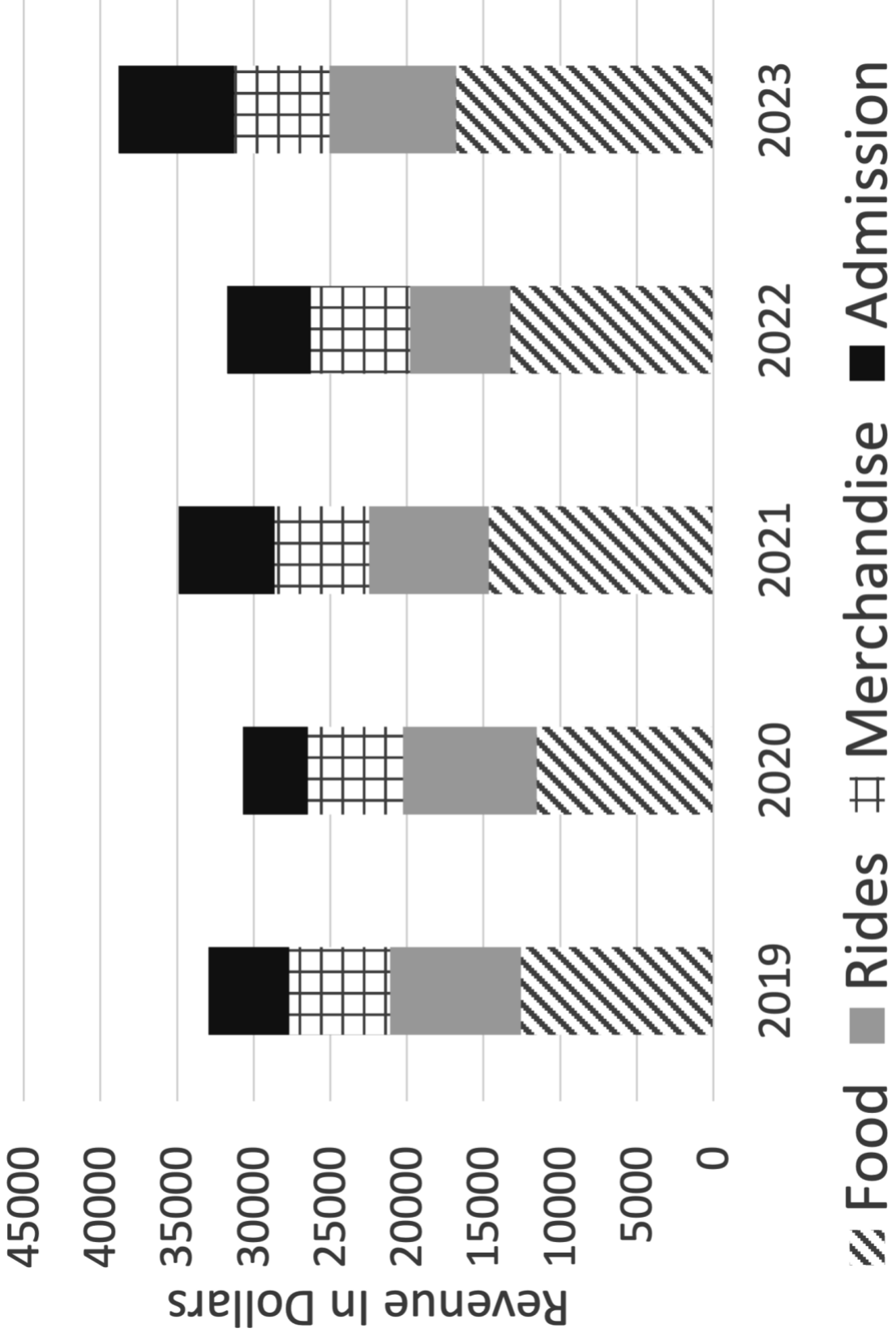
County Fair Revenue

31. How many types of revenue are detailed on this graph?
    a. 0
    b. 1
    c. 3
    d. 4

32. What year had the highest combined revenue generation?
    a. 2020
    b. 2021
    c. 2022
    d. 2023

33. In how many years did food sales account for the most revenue?
    a. 0
    b. 1
    c. 4
    d. 5

34. Which category decreased in revenue each year from 2019 to 2022?
    a. Food
    b. Rides
    c. Merchandise
    d. None of the above

35. How many times did total revenue decrease compared to the year before?
    a. 0
    b. 1
    c. 2
    d. 4

36. In how many years did admissions generate the least amount of revenue?
    a. 0
    b. 1
    c. 2
    d. 3

37. What year did merchandise generate the most revenue?
    a. 2019
    b. 2020
    c. 2021
    d. 2022

38. Approximately how much revenue came from rides and merchandise sales combine in 2021?
    a. About $10,000
    b. About $14,000
    c. About $20,000
    d. About $30,000

39. What does the lightest portion of each column represent?
    a. 2019
    b. 2023
    c. Rides
    d. Admission

40. What category saw the smallest change in revenue from 2020 to 2021?
    a. Food
    b. Rides
    c. Merchandise
    d. Admission

TRUE/FALSE

41. Food revenue increased the most from 2022 to 2023.

42. The graph covers a ten-year time span.

43. Rides generated the second most amount of revenue every year.

44. 2023 saw an increase in revenue from every category.

45. Total revenue never fell below $30,000 in a single year.

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Australia and Oceania (Various Maps)

46. What is the main land cover type on the Solomon Islands?
    a. Cropland
    b. Grassland
    c. Semi-desert and desert
    d. Tropical rain forest

47. Which island is west of the Wallace Line?
    a. Belitung
    b. Buru Island
    c. Sumba
    d. Timor

48. The largest urban area is located in which country?
    a. Australia
    b. Indonesia
    c. Marshall Islands
    d. New Zealand

49. Which country's capital is closest to the equator?
    a. Australia
    b. Nauru
    c. Cambodia
    d. Papua New Guinea

50. What resource can be found on New Caledonia?
    a. Copper
    b. Iron
    c. Tin
    d. Nickel

51. Which country exports the most wool?
    a. Australia
    b. Indonesia
    c. China
    d. New Zealand

52. The Hawaiian Islands are part of what cultural group?
    a. Aborigine
    b. Micronesia
    c. Polynesia
    d. Melanesia

53. Which country has the lowest birth rate?
    a. Australia
    b. Micronesia
    c. Papua New Guinea
    d. The World

54. Which of the following Australian cities has the highest population?
    a. Derby
    b. Roma
    c. Wyndham
    d. Ballarat

55. What is the main type of land use on Tasmania?
    a. Urban
    b. Commercial farming
    c. Subsistence farming
    d. Ranching or herding

TRUE/FALSE

56. There are more cities of over 100,000 on the North Island than the South Island of New Zealand.

57. The population centers of Australia are mainly on the coast.

58. The city of Christchurch is located in the state of South Australia.

59. Traveling from Kiribati to Nauru means you would subtract a day because of the International Dateline.

60. Wetar Island is a territory of the Solomon Islands.

AREA FAIR ATTENDANCE

Legend:
- Fast River Fair
- State Fair
- Big Sky Fair
- Preston County Fair
- Central State Fair

Y-axis: NUMBER OF ATTENDEES (0, 1000, 2000, 3000, 4000, 5000, 6000, 7000, 8000, 9000, 10000)

X-axis: 2018, 2019, 2020, 2021, 2022

Area Fair Attendance

61. How many fairs had their lowest attendance in 2021?
    a. 0
    b. 1
    c. 2
    d. 3

62. What fair had the highest attendance in 2018?
    a. Fast River Fair
    b. Big Sky Fair
    c. Preston County Fair
    d. Central State Fair

63. How many fairs decreased in attendance from 2020 to 2021?
    a. 0
    b. 1
    c. 2
    d. 3

64. Which fair had the most consistent number of attendees from 2018 to 2022?
    a. Fast River Fair
    b. Big Sky Fair
    c. Preston County Fair
    d. Central State Fair

65. How many fairs exceeded more than 8,000 attendees in a single year?
    a. 0
    b. 1
    c. 3
    d. 4

66. Which fair had attendance between 7000-8000 for 4 of the 5 years?
    a. Fast River Fair
    b. Big Sky Fair
    c. Preston County Fair
    d. Central State Fair

67. In 2018, which fair had approximately 4,500 attendees?
    a. State Fair
    b. Big Sky Fair
    c. Preston County Fair
    d. Central State Fair

68. What does the y-axis represent?
    a. Average number of attendees
    b. Actual number of attendees
    c. The year
    d. None of the above

69. Which fair had the biggest drop in attendees from one year to the next?
    a. State Fair
    b. Big Sky Fair
    c. Preston County Fair
    d. Central State Fair

70. What year did Big Sky Fair have the its highest attendance?
    a. 2018
    b. 2019
    c. 2020
    d. 2021

TRUE/FALSE

71. Four fairs decreased in attendance from 2020 to 2021.

72. Fast River Fair had the lowest number of attendees for all years combined.

73. Fast River Fair is the only fair that increased in attendance every year.

74. Big Sky Fair had the lowest number of attendees the most years.

75. 2018 saw a higher number of attendees for all fairs combined than 2020 did.

1. B	26. F	51. A
2. D	27. T	52. C
3. B	28. F	53. A
4. A	29. F	54. C
5. C	30. T	55. D
6. C	31. D	56. T
7. B	32. D	57. T
8. D	33. D	58. F
9. D	34. D	59. F
10. A	35. C	60. F
11. B	36. D	61. B
12. B	37. A	62. D
13. D	38. B	63. C
14. B	39. C	64. C
15. C	40. C	65. B
16. D	41. T	66. D
17. D	42. F	67. B
18. A	43. T	68. B
19. A	44. F	69. A
20. C	45. T	70. C
21. B	46. D	71. F
22. C	47. A	72. F
23. B	48. A	73. T
24. D	49. B	74. T
25. A	50. D	75. F

CONTESTANT NUMBER: _____

UiL

University Interscholastic League
A+ Mathematics Contest • Answer Sheet

Write your contestant number in the upper right corner, and circle your grade below.
Circle Grade Level: 6   7   8

1.	A	B	C	D	E	26.	A	B	C	D	E
2.	A	B	C	D	E	27.	A	B	C	D	E
3.	A	B	C	D	E	28.	A	B	C	D	E
4.	A	B	C	D	E	29.	A	B	C	D	E
5.	A	B	C	D	E	30.	A	B	C	D	E
6.	A	B	C	D	E	31.	A	B	C	D	E
7.	A	B	C	D	E	32.	A	B	C	D	E
8.	A	B	C	D	E	33.	A	B	C	D	E
9.	A	B	C	D	E	34.	A	B	C	D	E
10.	A	B	C	D	E	35.	A	B	C	D	E
11.	A	B	C	D	E	36.	A	B	C	D	E
12.	A	B	C	D	E	37.	A	B	C	D	E
13.	A	B	C	D	E	38.	A	B	C	D	E
14.	A	B	C	D	E	39.	A	B	C	D	E
15.	A	B	C	D	E	40.	A	B	C	D	E
16.	A	B	C	D	E	41.	A	B	C	D	E
17.	A	B	C	D	E	42.	A	B	C	D	E
18.	A	B	C	D	E	43.	A	B	C	D	E
19.	A	B	C	D	E	44.	A	B	C	D	E
20.	A	B	C	D	E	45.	A	B	C	D	E
21.	A	B	C	D	E	46.	A	B	C	D	E
22.	A	B	C	D	E	47.	A	B	C	D	E
23.	A	B	C	D	E	48.	A	B	C	D	E
24.	A	B	C	D	E	49.	A	B	C	D	E
25.	A	B	C	D	E	50.	A	B	C	D	E

INVITATIONAL 2023-2024
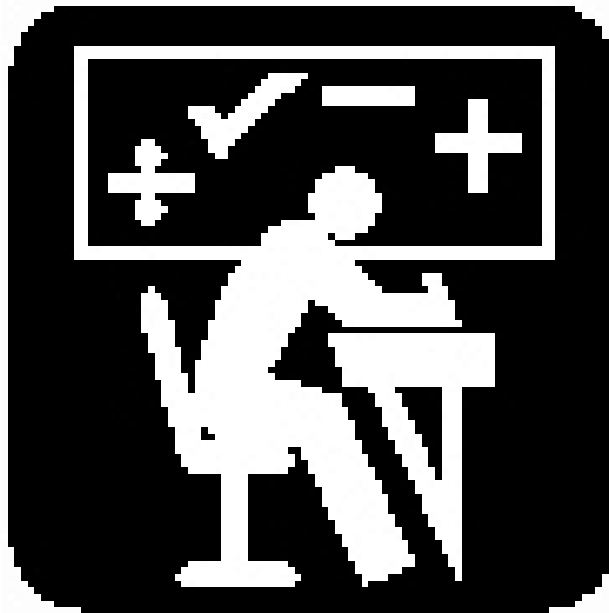
A+ ACADEMICS

University Interscholastic League

Mathematics

DO NOT OPEN TEST
UNTIL TOLD TO DO SO

2023 – 2024 University Interscholastic League JH/MS Mathematics Contest A

(1) Evaluate: $8 + 24 \div 2^3$

A) 12   B) 4   C) 14   D) 11   E) $6\frac{1}{3}$

(2) Two straight lines cross each other, forming four angles. If one angle is 28°, the other largest angle is
A) 28°   B) 62°   C) 152°   D) 332°   E) None of These

(3) A turtle had a journey 240 feet to crawl. In the first hour it crawled $\frac{1}{2}$ the total distance. The turtle stopped

and rested and then crawled $\frac{1}{3}$ the remaining distance. Again, the turtle stopped and rested. Next the turtle

crawled $\frac{1}{4}$ of the remaining distance and stopped to rest. How much distance was left for the turtle to

crawl?
A) 60 feet   B) 120 feet   C) 10 feet   D) 20 feet   E) 40 feet

(4) Susan can bicycle 5 feet/second while Mario can bicycle 4 feet/second. If they are racing side by side
initially, how far apart will they be after Susan bicycles 100 yards?
A) 100 feet   B) 75 feet   C) 60 feet   D) 30 feet   E) 15 feet

(5) A chessboard is comprised of 8 by 8 identical size squares. If a nickel is placed on each square what is the
total amount of money placed on the chessboard?
A) $64.00   B) $3.20   C) $32   D) $6.40   E) 64¢

(6) What is the largest prime number less than 100?
A) 99   B) 95   C) 91   D) 89   E) None of These

(7) $1001 \times 87 =$
A) 8,787   B) 80,887   C) 87,807   D) 87,870   E) 87,087

(8) What is the total area of the figure to the right?

A) 25 sq. ft.   D) 22 sq. ft.

B) 36 sq. ft.   E) 28 sq. ft.

C) 20 sq. ft.

Problem
8

5 ft.

4 ft.

4 ft.
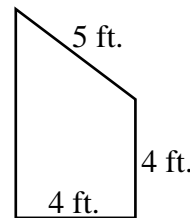
(9) If there are $16\frac{1}{2}$ feet in a rod, how many rods are in one mile?

A) 320 rods   B) 5,280 rods   C) 1,760 rods   D) 440 rods   E) 160 rods

(10) Armando pours 2 gallons of grape juice into a container and 3 quarts of water into the same container.
Later he pours out 6 pints of the liquid in the container. How much liquid is left in the container?

A) 12 quarts   B) $2\frac{1}{2}$ gallons   D) 22 pints   D) $2\frac{3}{4}$ gallons   E) 8 quarts

(11) Black-Jack, one of Goldie's kittens, was born on March 18th. How old was Back-Jack at the end of
the day on May 18th?
A) 59 days   B) 60 days   C) 61 days   D) 62 days   E) None of These

(12)   Susie is twice as old as Tina. Five years ago, Tina was two years younger than Penelope. If Penelope is twelve, how many years old is Susie?

   A) 16 years   B) 18 years   C) 20 years   D) 22 years   E) 24 years

(13)   Wesley has taken 5 reading quizzes and has scored an average of 80 on the quizzes. If he scored 70, 80, 85, and 95 on four of the quizzes, what did he score on the other quiz?

   A) 60   B) 68   C) 70   D) 72   E) 80

(14)   Matt and Mike are running in opposite directions around a circular track with a circumference of 960 m. Matt runs at a speed of 50 m/s and Mike runs at a speed of 70 m/s. If they start at the same point, after how many seconds will they meet?

   A) 48 seconds   B) 45 seconds   C) $19\frac{1}{5}$ seconds   D) $13\frac{5}{7}$ seconds   E) 8 seconds

(15)   Points A, B, C, and D lie on a line in alphabetical order. If $BC = CD$, $AB = 10$ and $AD = 38$, what is the value of BC?

   A) 14   B) 12   C) 16   D) 24   E) 28

(16)   Albert is shoveling snow from his 20-foot by 50-foot driveway. If one foot of snow has fallen on the ground, what volume of snow will he have to shovel, in cubic feet?

   A) 70 ft^3 B) 100 ft^3 C) 140 ft^3 D) 10,000 ft^3 E) None of These

(17)   An equilateral triangle and a square have the same perimeter. If the square has an area of 36 square centimeters (cm^2), what is the area of the triangle in square centimeters?

   A) 16 cm^2 B) $16\sqrt{3}$ cm^2 C) $12\sqrt{3}$ cm^2 D) 36 cm^2 E) $9\sqrt{3}$ cm^2

(18)   Li and James each have identical pumpkin pies. Li eats 2/3 of his pie and James eats 3/4 of his pie. If they put the remainder of their pies together, what fraction of a whole pie do they have left?

   A) $\frac{1}{4}$ B) $\frac{5}{12}$ C) $\frac{5}{6}$ D) $\frac{7}{12}$ E) $\frac{3}{4}$

(19)   What is the smallest positive integer with only 4 positive divisors?

   A) 24   B) 20   C) 8   D) 6   E) 4

(20)   What is the product of the least common multiple and the greatest common factor of 16 and 25?

   A) 100   B) 180   C) 200   D) 320   E) 400

(21)   Eighteen is 30% of what number?

   A) 6   B) 21   C) 36   D) 54   E) None of These

(22)   In the figure below, all angles are right angles and side lengths are as labeled. What is the perimeter of the figure?

   A) 36

   B) 38

   C) 40

   D) 42

   E) 44

Problem # 22
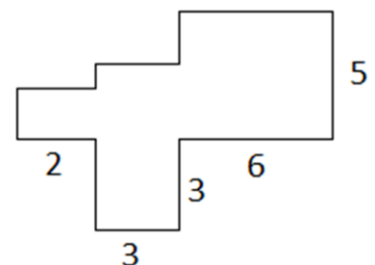
(23) A local thrift store is holding its annual "buy 2 get 1 free" sale on shirts. If one shirt usually costs $15, how
      many dollars would you save by getting a total of 6 shirts?
      A) $90   B) $60   C) $30   D) $15   E) None of These

(24) If $0 < a, b, c < 1$, which of the following inequalities must be true?
      A) $a^2 + b^2 + c^2 < 0$ B) $a + b + c > 0$ C) $-1 < abc < 0$ D) $(abc)^2 > 1$ E) $abc < 0$

(25) Given the right triangle below, what integer is closest to the value of x?
      A) 18

      B) 19
                                                    Problem   10
      C) 20   # 25

      D) 25

      E) 325   15
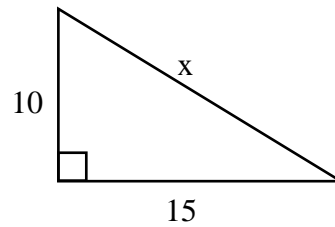
(26) I have a bag of beans. There are four coffee beans, six java beans, three string beans, three pinto beans, and
      four black beans. I draw a bean from the bag randomly. If each bean is the same size, what is the
      probability that I get a java bean?
      A) $\frac{1}{5}$ B) $\frac{3}{5}$ C) $\frac{3}{10}$ D) $\frac{1}{4}$ E) $\frac{1}{6}$

(27) If $5x + 2 = 11x - 34$, what does the variable x equal?
      A) 6   B) 32   C) 33   D) 66   E) 76

(28) How many rectangles of any size are in the image below?
      A) 12

      B) 10

      C) 9   Problem
                                                      #28
      D) 6

      E) 4
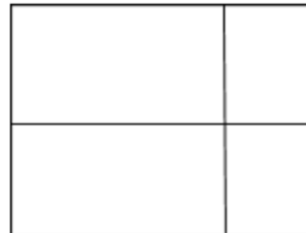
(29) How many ways are there to arrange the letters "B", "U", "R", and "T"?
      A) 4   B) 8   C) 12   D) 16   E) 24

(30) There are 24 students in Ms. Woodall's class. One-half of the students are boys and one-third of the boys
      have brown hair. What is the number of boys in Ms. Woodall's class who have brown hair?
      A) 4   B) 6   C) 8   D) 12   E) 20

(31) Which of the following numbers has a value that is between 10% and $\frac{1}{9}$?
      A) 0.019   B) 0.108   C) 0.112   D) 0.151   E) None of These

(32) What is the value of the expression: $|-5| - |-12|$?
      A) -17   B) 17   C) 7   D) -7   E) -60

(33) What is the ninth triangular number?
      A) 9   B) 10   C) 18   D) 45   E) 81

The table below shows the scores Analisa and Luke earned on four science projects. Analisa and Luke worked on a fifth science project together. They each earned the same score on the project. When the fifth score is included in the table, Analisa's mean score does not change. Please use this table to answer questions 34 – 38.

Science Project Scores

Project	Analisa	Luke
1	95	90
2	81	84
3	76	95
4	88	91
5	?	?

(34) What was the score on Analisa's fifth project?
  A) 82   B) 83   C) 85   D) 86   E) 88

(35) Which of the following statements describes how Luke's mean score changes when his fifth score is included in the table?
  A) increases by 1   B) decreases by 1   C) increases by 1.5 D) decreases by 2.5 E) increases by 2.5

(36) Including the fifth project score, what is the range of scores for Analisa?
  A) 13   B) 16   C) 19   D) 14   E) 11

(37) Including the fifth project score, what is the median of scores for Luke?
  A) $84\dfrac{1}{5}$ B) 88   C) $88\dfrac{1}{5}$ D) 89   E) 90

(38) Including all five project scores, what is the positive difference in the mean and median scores for Analisa?
  A) 0   B) 1   C) 1.5   D) 2   E) 2.5

(39) Liz took five ping-pong balls and labeled them {1, 3, 4, 5, 6}. Genny took five different ping-pong balls and labeled them {2, 4, 6, 8, 9}. If all the balls were placed in a black bag and Andy pulled one ball out randomly, what is the probability the ball has a even number on it?
  A) $\dfrac{1}{2}$ B) $\dfrac{3}{5}$ C) $\dfrac{2}{5}$ D) $\dfrac{7}{10}$ E) $\dfrac{3}{4}$

(40) Mike is 6 feet tall and casts a shadow that is 8 feet long. If Paige is 5 feet 3 inches tall, how long is her shadow?
  A) $6\dfrac{1}{3}$ feet   B) $6\dfrac{1}{2}$ feet   C) 7 feet   D) 8 feet   E) $8\dfrac{1}{2}$ feet

(41) $12 \times 1.1666\ldots =$
  A) 9   B) 10   C) 13   D) 14   E) 15

(42) Dan wants to purchase one large pizza and some soft drinks for a club meeting. He compares the prices at two restaurants. Each soft drink at the first restaurant has the same price. The table below shows y, the total price of one large pizza and x soft drinks at the first restaurant.

Prices at the First Restaurant

x	y
1	$19.25
2	$20.50
3	$21.75
4	$23.00
5	$24.25

At the **second** restaurant, the total price, y, of one large pizza and x soft drinks can be represented by the equation below.

$$y = 1.5x + 18$$

Which of the following statements is true?
A) The price of one large pizza is more at the second restaurant than at the first restaurant.
B) The price of one large pizza is more at the first restaurant than at the second restaurant.
C) The price of one soft drink is more at the second restaurant than at the first restaurant.
D) The price of one soft drink is more at the first restaurant than at the second restaurant.
E) The price of one soft drink and one large pizza is the same for both restaurants.

(43) 24 (base 5) + 14 (base 5) = _____ (base 5)
A) 38   B) 33   C) 48   D) 43   E) 103

(44) A certain large ranch in Texas is 25 square miles. How many acres does this represent?
A) 100 acres   B) 250 acres   C) 1,000 acres   D) 2,500 acres   E) 16,000 acres

(45) What is the probability of drawing, at random, an ace from a standard deck of 52 cards?
A) $\dfrac{1}{13}$ B) $\dfrac{1}{26}$ C) $\dfrac{2}{13}$ D) $\dfrac{1}{52}$ E) $\dfrac{1}{4}$

(46) If cleaning costs $32 for 4 hours, how much is it for 10.5 hours?
A) $76   B) $76.50   C) $84   D) $84.50   E) $87

(47) A sofa sells for $520. If the retailer makes a 30% profit, what was the wholesale price?
A) $360   B) $364   C) $400   D) $490   E) $676

(48) If you throw 2 fair six-sided dice, how many different ways can you get a sum of seven?
A) 3   B) 4   C) 5   D) 6   E) 8

(49) A rectangle floor rug is 2 yd by 3 yd. How many square inches of the floor does this cover?
A) 4,888 in^2 B) 5,160 in^2 C) 6,494 in^2 D) 7,776 in^2 E) 8,640 in^2

(50) One fabulous day, Mary Moneybags had $80 in the bank. Then every day after, she added $20 to her savings account. On that same fabulous day, Pamela Poorhouse had $320 in the bank. Then every day after, she took out $40 from her savings account to spend. How many days after the fabulous day did they have the same amount of money?
A) day 4   B) day 5   C) day 6   D) day 7   E) day 8

2023 – 2024 University Interscholastic League JH/MS Mathematics Contest A – Key

(1)	D		(26)	C
(2)	C		(27)	A
(3)	A		(28)	C
(4)	C		(29)	E
(5)	B		(30)	A
(6)	E (97)		(31)	B
(7)	E		(32)	D
(8)	D		(33)	D
(9)	A		(34)	C
(10)	E		(35)	B
(11)	C		(36)	C
(12)	C		(37)	E
(13)	C		(38)	A
(14)	E		(39)	B
(15)	A		(40)	C
(16)	E (1000)		(41)	D
(17)	B		(42)	C
(18)	D		(43)	D
(19)	D		(44)	E
(20)	E		(45)	A
(21)	E (60)		(46)	C
(22)	B		(47)	C
(23)	C		(48)	D
(24)	B		(49)	D
(25)	A		(50)	A

FALL/WINTER DISTRICT 2023-2024
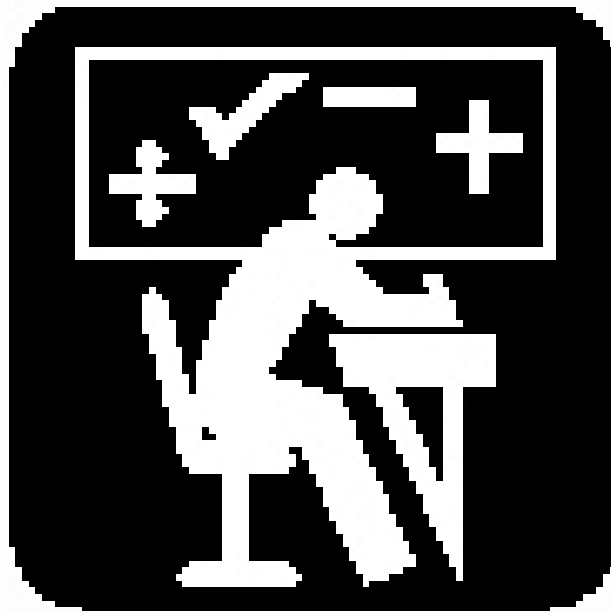
A+ ACADEMICS


University Interscholastic League

Mathematics

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

2023 – 2024 University Interscholastic League JH/MS Mathematics Contest B

(1)　Evaluate: $12 + 18 \div 6 - 4$

　　A) 1　　　　　　B) 9　　　　　　C) 11　　　　　D) 15　　　　　E) $-\dfrac{2}{3}$

(2)　$1 + 3 + 5 + \ldots + 49 =$
　　A) 625　　　　　B) 576　　　　　C) 256　　　　　D) 125　　　　　E) None of These

(3)　Wes was driving a go-kart 12 mph at a local park. He drove for 20 minutes, how far did he travel?
　　A) 1.2 miles　　B) 2.4 miles　　C) 4 miles　　　D) 6 miles　　　E) 12 miles

(4)　Ben rotated each of the letters below 180° about its center and drew the resulting image. Which letter would have a resulting image that is unchanged from the original letter?
　　A) Z　　　　　　B) R　　　　　　C) K　　　　　D) T　　　　　E) L

(5)　Ribbon costs 30 cents per foot. What is the total cost of three pieces measuring $1\dfrac{1}{2}$ ft., 2 ft., and 15 inches?
　　A) 55¢　　　　　B) 80¢　　　　　C) $1.43　　　　D) $1.45　　　　E) $5.55

(6)　Which of the following is the prime factorization of 72?
　　A) $8^1 \times 9^1$　　　B) $3^2 \times 2^3$　　　C) $2^8 \times 3^9$　　　D) $2^3 \times 3^2$　　　E) $2^8 \times 9^1$

(7)　$143 \times 210 =$
　　A) 30,003　　　B) 30,030　　　C) 33,030　　　D) 3,003　　　E) 33,003

(8)　Which three-dimensional shape could be made by folding the following net below on the dashed lines?

　　A) Square Prism

　　B) Square Pyramid

　　C) Triangular Prism　　　　　　　Problem
　　　　　　　　　　　　　　　　　　# 8
　　D) Triangular Pyramid

　　E) Equilateral Triangular Pyramid
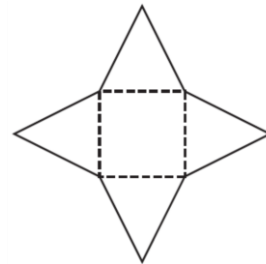
(9)　If a furlong in horse racing is 220 yards, how many furlongs are in one mile?

　　A) 7 furlongs　　B) $7\dfrac{5}{11}$ furlongs　　C) 8 furlongs　　D) $8\dfrac{1}{2}$ furlongs　　E) 110 furlongs

(10)　Terry needs 12 quarts of juice to have enough for 6 batches of fruit punch. How many gallons of juice will he need?
　　A) 2 gallons　　B) 3 gallons　　C) 4 gallons　　　D) 5 gallons　　　E) 6 quarts

(11)　Honey, one of Goldie's kittens, was born on March 18th. How old was Honey at the end of the day on June 8th?
　　A) 61 days　　　B) 69 days　　　C) 74 days　　　D) 82 days　　　E) None of These

(12)　On a triangle, Side B is twice as long as Side A. Side C is 1 centimeter shorter than Side B. If the perimeter of the triangle is 11.5 centimeters, how long is Side B?
　　A) 2 centimeters　　B) 2.5 centimeters　　C) 4.2 centimeters　　D) 6 centimeters　　E) None of These

(13) Mackenzie knows that she will have five tests this grading period and that she must have at least an 80% average to play on the school's golf team. Her mean for the first four tests is 77%. What is the least score she can get on the last test and still qualify to play golf?
A) 94   B) 92   C) 90   D) 89   E) 85

(14) Jo and Jen live 56 kilometers apart. They are both going to leave at 10:00 am riding bikes toward each other. Jo's average speed is 6 km per hour. Jen's average speed is 8 km per hour. If they take no breaks, what time will they meet?
A) 2:00 PM   B) 3:30 PM   C) 4:20 PM   D) 5:05 PM   E) 6:10 PM

(15) What is the sum of the mean, median, and mode of the numbers {2, 3, 0, 3, 1, 4, 0, 3} ?
A) $6\frac{1}{2}$ B) 7   C) $7\frac{1}{2}$ D) $8\frac{1}{2}$ E) 9

(16) Which of the following statements is true for the equation $8x - 2y + 10 = 0$?
A) The graph of the equation is a straight line parallel to the y-axis.
B) The graph of the equation is the straight line with slope negative 4.
C) The graph of the equation is a straight line crossing the y-axis at (0, 5).
D) The graph of the equation is a straight line crossing the y-axis at the origin.
E) The graph of the equation is a parabola crossing the x-axis at (5, 0) and (-5,0).

(17) An isosceles triangle has sides of 10-in., 10 in., and 16 in. What is the area of this triangle?
A) 48 in^2 B) 96 in^2 C) $96\sqrt{2}$ in^2 D) 80 in^2 E) $48\sqrt{2}$ in^2

(18) A rectangle has an area of 12 square yards and a perimeter of 16 yards. What is the length of the longer side of the rectangle?
A) 4 yards   B) 6 yards   C) 5 yards   D) 3 yards   E) 2 yards

(19) If Clara doubles a number and then adds 3, the result is 23. What is the original number?
A) 10   B) 13   C) 17   D) 20   E) 49

(20) $3\frac{1}{2}$% of 12 is equal to what percent of 7?
A) 42   B) 36   C) 6   D) 14   E) 421

(21) Lisa charges $7 for travel costs and then $10 per hour for babysitting. Which expression always represents the number of dollars that she charges for y hours of babysitting?
A) $y + 7$ B) $17y$ C) $10y - 7$ D) $10y + 7$ E) $17y - 7$

(22) In the figure below, there are three congruent hexagons. If each side measures 4-cm, what is the perimeter of the figure?

A) 72 cm

B) 66 cm

C) 60 cm

D) 48 cm

E) 44 cm

Problem # 22
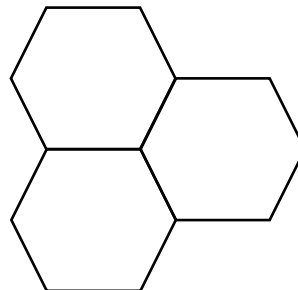
(23) If I spent $4.65, which includes 25 cents tax, for soft drinks which cost 40 cents each, how many soft drinks did I buy?

A) 9   B) 10   C) 11   D) 12   E) None of These

(24) If a, b, and c are integers and $ac = bc$ then which of the following is true?

A) $a = b$ B) $a - b = c$ C) $a + b = c$ D) $ab = c$ E) $a = b$ or $c = 0$

(25) Given the right triangle below, what integer is closest to the value of x?

A) 18

B) 19

C) 20

D) 21

E) 451

Problem # 25   15   26   x
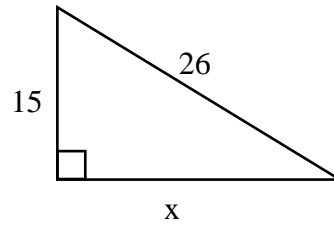
(26) One ball is drawn randomly from a bag containing 4 blue balls, 6 yellow balls, and 5 red balls. What is the probability that the ball that is drawn is not red?

A) $\dfrac{2}{3}$ B) $\dfrac{3}{5}$ C) $\dfrac{2}{5}$ D) $\dfrac{1}{3}$ E) $\dfrac{3}{4}$

(27) What is the value of y that satisfies the equation $5y - 100 = 125$?

A) 100   B) 45   C) 25   D) -5   E) -25

(28) How many triangles of any size are in the image below?

A) 8

B) 10

C) 12

D) 15

E) 17

Problem #28
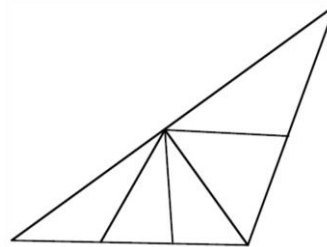
(29) Andy has purchased five trees of different varieties to plant along the front of his lawn. How many different arrangements of the trees are possible after the spots for planting have been selected?

A) 5   B) 25   C) 120   D) 125   E) 3,125

(30) At the sandwich shop, you have a choice of four meats, three breads, five kinds of chips, and three different beverages. How many different meals (one each of meat, bread, chips, and drink) are possible?

A) 15   B) 20   C) 27   D) 60   E) 180

(31) If today were Sunday, what day of the week would it be 500 days from today? (Note: tomorrow is one day from today.)

A) Saturday   B) Monday   C) Thursday   D) Tuesday   E) None of These

(32) Find the least common multiple for the following set of numbers: {4, 9, 12}.

A) 1   B) 12   C) 24   D) 36   E) 72

(33) What is the sum of the tenth and eleventh triangular numbers?

A) 55   B) 66   C) 121   D) 132   E) 242

The graph below shows the number of cups of orange juice that can be made from different numbers of oranges. Please use this graph to answer questions 34 – 38.
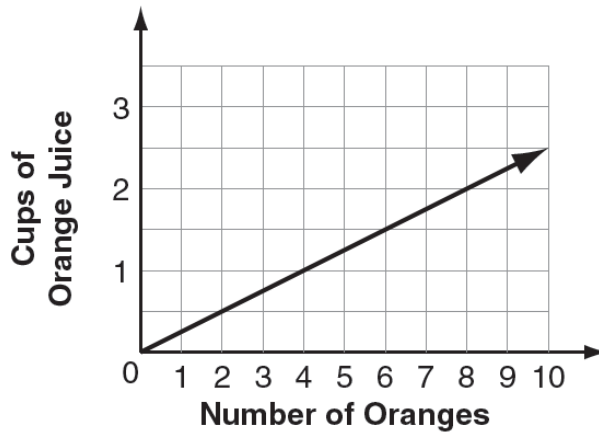
(34) How many cups of orange juice can be made from 4 oranges?

A) 16 cups   B) 8 cups   C) 4 cups   D) 2 cups   E) 1 cup

(35) If you had a dozen oranges, how much orange juice can you make?

A) 12 cups   B) 8 cups   C) 6 cups   D) 3 cups   E) 2 cups

(36) How many oranges would you need to make 8 ounces of orange juice?

A) 1   B) 2   C) 3   D) 4   E) 16

(37) If oranges cost 25¢ each, how much should 12 ounces of orange juice cost?

A) $1.25   B) $1.50   C) $2.25   D) $3.00   E) $2.50

(38) What is the slope of the graph?

A) $\dfrac{1}{2}$ B) $\dfrac{1}{4}$ C) $\dfrac{2}{1}$ D) $\dfrac{4}{1}$ E) $\dfrac{3}{4}$

(39) One ounce of baked potato chips has 80% less fat than one ounce of "classic" potato chips. How many ounces of baked potato chips would you have to eat to get the same amount of fat as in two ounces of "classic" chips?

A) 5 ounces   B) 8 ounces   C) 10 ounces   D) 20 ounces   E) 80 ounces

(40) The ratio of the number of girls to the number of boys in a class of 24 students is 3 to 5. How many fewer girls than boys are in the class?

A) 2   B) 4   C) 5   D) 6   E) 8

(41) How many prime numbers are there between 10 and 30?

A) 3   B) 4   C) 5   D) 6   E) 7

(42) The graph below shows the price of five gallons of gasoline during the first ten months of the year. By what percent is the highest price more than the lowest price?
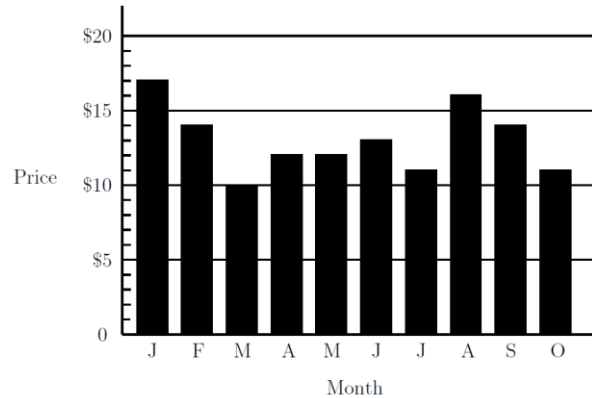
A) 50%   B) 62%   C) 70%   D) 89%   E) 100%

(43) 10111011 (base 2) = _____ (base 8)
A) 308   B) 273   C) 307   D) 282   E) 7,032

(44) A certain large ranch in Texas is 12 square miles. How many acres does this represent?
A) 144 acres   B) 1,440 acres   C) 2,440 acres   D) 7,680 acres   E) 12,000 acres

(45) What is the probability of drawing, at random, a red queen from a standard deck of 52 cards?

A) $\dfrac{1}{26}$ B) $\dfrac{1}{13}$ C) $\dfrac{2}{13}$ D) $\dfrac{1}{52}$ E) $\dfrac{1}{4}$

(46) A trapezoid has bases of 8 meters and 15 meters, and a height of 6 meters. What is the area of the trapezoid?
A) 53 m^2 B) 69 m^2 C) 80 m^2 D) 84 m^2 E) 138 m^2

(47) Matt advertises that every item in his store is sold at 25% off the regular price. If he wishes to sell a coat for $135, what price should he mark as the regular price?
A) $180   B) $97.50   C) $205   D) $100   E) $500

(48) There are six cards that spell out **C H A N C E**. Suppose you choose one card at random. What is the probability that you do not draw a vowel?

A) $\dfrac{1}{3}$ B) $\dfrac{1}{2}$ C) $\dfrac{2}{3}$ D) $\dfrac{3}{5}$ E) $\dfrac{1}{6}$

(49) The coordinates of one endpoint of a line segment are (3, -3). The coordinates of the midpoint are (7, 5). What are the coordinates of the other endpoint?
A) (5, 1)   B) (7, 17)   C) (17, 7)   D) (13, 11)   E) (11, 13)

(50) A jar contains five different colors of candies: 30% are blue, 20% are brown, 15% are red, 10% are yellow, and the other 30 candies are green. If half of the blue candies are replaced by brown candies, how many of the candies will be brown?
A) 35   B) 36   C) 42   D) 48   E) 64

2023 – 2024 University Interscholastic League JH/MS Mathematics Contest B – Key

(1)	C	(26)	A
(2)	A	(27)	B
(3)	C	(28)	B
(4)	A	(29)	C
(5)	C	(30)	E
(6)	D	(31)	E (Wednesday)
(7)	B	(32)	D
(8)	B	(33)	C
(9)	C	(34)	E
(10)	B	(35)	D
(11)	D	(36)	D
(12)	E (5)	(37)	B
(13)	B	(38)	A
(14)	A	(39)	C
(15)	C	(40)	D
(16)	C	(41)	D
(17)	B	(42)	C
(18)	B	(43)	B
(19)	A	(44)	D
(20)	C	(45)	A
(21)	D	(46)	B
(22)	D	(47)	A
(23)	C	(48)	C
(24)	E	(49)	E
(25)	D	(50)	C

2023 – 2024 University Interscholastic League JH/MS Mathematics Contest C

(1)   Evaluate: $8 + 12 \div 6 - 3$

A) $\dfrac{1}{3}$ B) 7   C) 8   D) 12   E) $-\dfrac{1}{3}$

(2) $2 + 4 + 6 + \ldots + 50 =$
A) 5,050   B) 2,550   C) 1,275   D) 650   E) None of These

(3)   Wes was driving a go-kart 12 mph at a local park. If he drove for 15 minutes, how far did he travel?
A) 18 miles   B) 6 miles   C) 4.25 miles   D) 3.75 miles   E) 3 miles

(4)   Ben rotated each of the letters below 180° about its center and drew the resulting image. Which letter would have a resulting image that is unchanged from the original letter?
A) R   B) I   C) K   D) T   E) L

(5)   Ribbon costs 25 cents per foot. What is the total cost of three pieces measuring $1\dfrac{1}{2}$ ft., 2 ft., and 18 inches?

A) 50¢   B) 75¢   C) $3.75   D) $4.25   E) $1.25

(6)   Which of the following is the prime factorization of 60?
A) $2^2 \times 3^1 \times 5^1$ B) $3^2 \times 10^1$ C) $2^6 \times 3^{10}$ D) $2^3 \times 3^2 \times 5^2$ E) $2^3 \times 3^2 \times 5^1$

(7) $143 \times 77 =$
A) 11,110   B) 1,111   C) 10,111   D) 11,011   E) None of These

(8)   Which three-dimensional shape could be made by folding the net below on the dashed lines?

A) Triangular Prism

B) Hexagonal Pyramid

C) Rectangular Prism

D) Parallelogram Prism

E) Equilateral Pyramid

Problem # 8
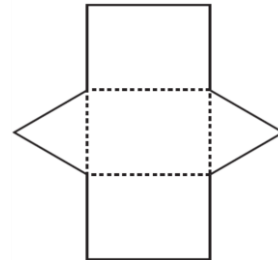
(9)   If a furlong in horse racing is 220 yards, how many furlongs are in one-half mile?

A) 4 furlongs   B) $4\dfrac{5}{11}$ furlongs   C) 8 furlongs   D) $8\dfrac{1}{2}$ furlongs   E) 110 furlongs

(10)   Noah needs 8 quarts of juice to have enough for 12 batches of fruit punch. How many gallons of juice will he need?
A) 2 gallons   B) 3 gallons   C) 4 gallons   D) 5 gallons   E) 6 quarts

(11)   Blackjack, one of Faisy's kittens, was born on March 11th. How old was Blackjack at the end of the day on July 4th?
A) 91 days   B) 95 days   C) 111 days   D) 114 days   E) None of These

(12)   On a triangle, Side B is twice as long as Side A. Side C is 1 centimeter shorter than Side B. If the perimeter of the triangle is 9 centimeters, how long is Side B?
A) 2 centimeters   B) 2.5 centimeters   C) 4 centimeters   D) 6 centimeters   E) None of These

(13) Mackenzie knows that she will have five tests this grading period and that she must have at least an 80% average to play on the school's golf team. Her mean for the first four tests is 78%. What is the least score she can get on the last test and still qualify to play golf?
A) 92   B) 91   C) 90   D) 89   E) 88

(14) Jose and Juan live 42 kilometers apart. They are both going to leave at 10:00 am riding bikes toward each other. Jose's average speed is 6 km per hour. Juan's average speed is 8 km per hour. If they take no breaks, what time will they meet?
A) 1:00 PM   B) 1:30 PM   C) 2:00 PM   D) 2:30 PM   E) 3:00 PM

(15) What is the sum of the mean, median, and mode of the numbers {1, 2, 1, 3, 1, 4, 0, 4} ?
A) $2\dfrac{1}{2}$ B) 4   C) $4\dfrac{1}{2}$ D) 8   E) $8\dfrac{1}{2}$

(16) Which of the following statements is true for the equation $6x - 2y - 8 = 0$?
A) The graph of the equation is a straight line parallel to the x-axis.
B) The graph of the equation is the straight line with slope negative $\dfrac{1}{3}$.
C) The graph of the equation is a straight line crossing the y-axis at (0, -4).
D) The graph of the equation is a straight line crossing the y-axis at the origin.
E) The graph of the equation is a parabola crossing the x-axis at (5, 0) and (0,-5).

(17) An isosceles triangle has sides of 5 in., 5 in., and 8 in. What is the area of this triangle?
A) 100 in^2 B) 20 in^2 C) $20\sqrt{2} \text{ in}^2$ D) 12 in^2 E) $8\sqrt{2} \text{ in}^2$

(18) A rectangle has an area of 12 square yards and a perimeter of 14 yards. What is the length of the longer side of the rectangle?
A) 4 yards   B) 6 yards   C) 7 yards   D) 3 yards   E) 2 yards

(19) If Genny doubles a number and then subtracts 5, the result is 11. What is the original number?
A) 4   B) 5   C) 7   D) 8   E) 16

(20) $7\dfrac{1}{2}$% of 18 is equal to what percent of 15?
A) 30   B) 24   C) 16   D) 12   E) 9

(21) Lisa charges $8 for travel costs and then $15 per hour for pet-sitting. Which expression always represents the number of dollars that she charges for y hours of pet-sitting?
A) $15y + 8$ B) $15y$ C) $15y - 8$ D) $8y + 15$ E) $23y$

(22) In the figure below, there are three congruent hexagons. If perimeter of the figure is 132-m, what is the length of each side?

A) 10 m

B) 11 m

Problem
22
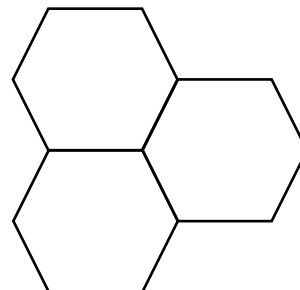
C) 12 m

D) 13 m

E) 14 m

(23) If I spent $6.49, which includes 49 cents tax, for soft drinks which cost 50 cents each, how many soft drinks did I buy?

A) 9   B) 10   C) 11   D) 12   E) None of These

(24) If a, b, and c are integers and $a + c = b + c$ then which of the following is true?

A) $a = b$ B) $a - b = c$ C) $a + b = c$ D) $ab = c$ E) $a = b$ or $c = 0$

(25) Given the right triangle below, what integer is closest to the value of x?

A) 13

B) 14

C) 15

D) 30

E) 168

Problem # 25
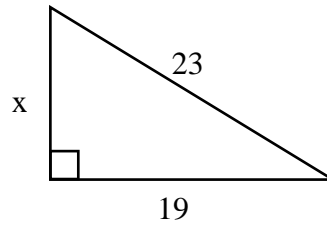
x   23   19

(26) One ball is drawn randomly from a bag containing 4 blue balls, 6 yellow balls, and 5 red balls. What is the probability that the ball that is drawn is not yellow?

A) $\dfrac{2}{3}$ B) $\dfrac{3}{5}$ C) $\dfrac{2}{5}$ D) $\dfrac{1}{3}$ E) $\dfrac{3}{4}$

(27) What is the value of y that satisfies the equation $4y - 100 = 120$?

A) 5   B) 45   C) 55   D) -5   E) 220

(28) How many triangles of any size are in the image below?

A) 5

B) 6

C) 7

D) 8

E) 9

Problem #28
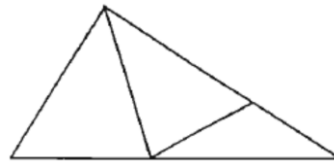
(29) Andy has purchased four bushes of different varieties to plant along the front of his lawn. How many different arrangements of the bushes are possible after the spots for planting have been selected?

A) 4   B) 8   C) 12   D) 16   E) 24

(30) At the sandwich shop, you have a choice of five meats, four breads, five kinds of chips, and three different beverages. How many different meals (one each of meat, bread, chips, and drink) are possible?

A) 17   B) 20   C) 35   D) 100   E) 300

(31) If today were Monday, what day of the week would it be 500 days from today? (Note: tomorrow is one day from today.)

A) Saturday   B) Monday   C) Thursday   D) Tuesday   E) None of These

(32) Find the least common multiple for the following set of numbers: {4, 8, 12}.

A) 2   B) 12   C) 24   D) 48   E) 72

(33) What is the sum of the sixth and seventh triangular numbers?

A) 42   B) 49   C) 84   D) 168   E) 242

Juan organizes the stamps in his collection by country and by the decade in which they were issued. The prices he paid for them at a stamp shop were: Brazil and France, 6¢ each; Peru 4¢ each; and Spain 5¢ each. (Brazil and Peru are South American countries and France and Spain are in Europe.) Please use the table below to answer questions 34 – 38.

Number of Stamps by Decade

Country	'50s	'60s	'70s	'80s
Brazil	4	7	12	8
France	8	4	12	15
Peru	6	4	6	10
Spain	3	9	13	9

Juan's Stamp Collection

(34) How much did his South American stamps issued before the '70s cost him?
A) 40¢   B) $1.06   C) $1.80   D) $2.38   E) $2.64

(35) How many of his European stamps were issued in the '80s?
A) 9 stamps   B) 15 stamps   C) 18 stamps   D) 24 stamps   E) 42 stamps

(36) What is the total cost of his '70s stamps?
A) $1.44   B) $2.09   C) $2.33   D) $2.67   E) $2.75

(37) How much more or less did he pay for his '80s French stamps versus his '80s Spanish stamps?
A) 1¢ less   B) 1¢ more   C) 72¢ less   D) 65¢ less   E) 45¢ more

(38) What is the closest average cost of his '70s stamps?
A) $5\frac{1}{2}$¢   B) 6¢   C) 4¢   D) $7\frac{1}{2}$¢   E) $3\frac{1}{2}$¢

(39) One ounce of baked potato chips has 80% less fat than one ounce of "classic" potato chips. How many ounces of baked potato chips would you have to eat to get the same amount of fat as in four ounces of "classic" chips?
A) 5 ounces   B) 8 ounces   C) 10 ounces   D) 20 ounces   E) 80 ounces

(40) The ratio of the number of girls to the number of boys in a class of 32 students is 3 to 5. How many fewer girls than boys are in the class?
A) 2   B) 4   C) 5   D) 6   E) 8

(41) How many prime numbers are there between 0 and 20?
A) 6   B) 7   C) 8   D) 9   E) 10

(42) What is the probability of drawing, at random, a black-Jack from a standard deck of 52 cards?
A) $\frac{1}{13}$ B) $\frac{1}{26}$ C) $\frac{2}{13}$ D) $\frac{1}{52}$ E) $\frac{1}{4}$

(43) Six-hundred fifty students were surveyed about their pasta preferences. The choices were lasagna, manicotti, ravioli, and spaghetti. The results of the survey are displayed in the bar graph. What is the ratio of the number of students who preferred spaghetti to the number of students who preferred manicotti?
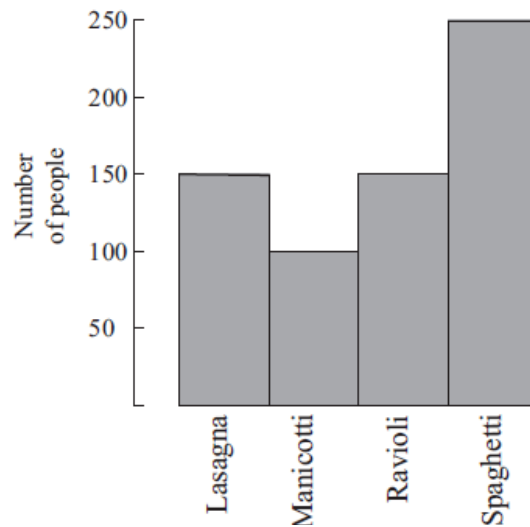
A) $\dfrac{2}{5}$ B) $\dfrac{1}{2}$ C) $\dfrac{5}{2}$ D) $\dfrac{5}{3}$ E) $\dfrac{5}{4}$

(44) 11011011 (base 2) = _____ (base 8)
A) 222   B) 273   C) 282   D) 303   E) 333

(45) A certain large ranch in Texas is 15 square miles. How many acres does this represent?
A) 9,600 acres   B) 2,225 acres   C) 2,250 acres   D) 22,500 acres   E) 225,000 acres

(46) A trapezoid has bases of 18 meters and 20 meters, and a height of 12 meters. What is the area of the trapezoid?
A) 114 m^2 B) 180 m^2 C) 224 m^2 D) 228 m^2 E) 4,320 m^2

(47) Matt advertises that every item in his store is sold at 25% off the regular price. If he wishes to sell a coat for $126, what price should he mark as the regular price?
A) $94.50   B) $97.50   C) $152   D) $156   E) $168

(48) There are six cards that spell out **C H A N C E**. Suppose you choose one card at random. What is the probability that you draw a vowel?
A) $\dfrac{1}{3}$ B) $\dfrac{1}{2}$ C) $\dfrac{2}{3}$ D) $\dfrac{3}{5}$ E) $\dfrac{1}{6}$

(49) The coordinates of one endpoint of a line segment are (3, -3). The coordinates of the midpoint are (-2, 3). What are the coordinates of the other endpoint?
A) (-7, 12)   B) (-7, 9)   C) (10, 0)   D) (-10, 12)   E) (-1, 10)

(50) A jar contains five different colors of candies: 30% are blue, 20% are brown, 15% are red, 10% are yellow, and the other 30 candies are green. If half of the red candies are replaced by brown candies, how many of the candies will be brown?
A) 30   B) 33   C) 36   D) 42   E) 48

2023 – 2024 University Interscholastic League JH/MS Mathematics Contest C – Key

(1)	B		(26)	B
(2)	D		(27)	C
(3)	E		(28)	A
(4)	B		(29)	E
(5)	E		(30)	E
(6)	A		(31)	C
(7)	D		(32)	C
(8)	A		(33)	B
(9)	A		(34)	B
(10)	A		(35)	D
(11)	E		(36)	C
(12)	C		(37)	E
(13)	E		(38)	A
(14)	A		(39)	D
(15)	C		(40)	E
(16)	C		(41)	C
(17)	D		(42)	B
(18)	A		(43)	C
(19)	D		(44)	E
(20)	E		(45)	A
(21)	A		(46)	D
(22)	B		(47)	E
(23)	D		(48)	A
(24)	A		(49)	B
(25)	A		(50)	D

Contestant's Number _____

Final _____ _____
2nd _____ _____
1st _____ _____
Score **Initials**

Read Directions Carefully   **Do Not Unfold This Sheet**
Before Beginning Test   **Until Told to Begin**

Directions: Do not turn this page until the person conducting this test gives the signal to begin. This is a ten-minute test. There are 80 problems. Solve accurately and quickly as many as you can in the order in which they appear. **ALL PROBLEMS ARE TO BE SOLVED MENTALLY**. Make no calculations with paper and pencil. Write only the answer in the space provided at the end of each problem. Problems marked with a (*) require approximate integral answers; any answer to a starred problem that is within five percent of the exact answer will be scored correct; all other problems require exact answers.

The person conducting this contest should explain these directions to the contestants.
Stop – Wait for Signal!

(1) $6 + 41 =$ _____

(2) $18 + 29 =$ _____

(3) $76 – 32 =$ _____

(4) $224 \div 2 =$ _____

(5) $13 \times 4 =$ _____

(6) $204 – 31 =$ _____

(7) $9 + 11 + 13 =$ _____

(8) $43 \times 11 =$ _____

(9) $832 \div 8 =$ _____

*(10) $3897 + 703 =$ _____

(11) $25 \times 32 =$ _____

(12)   Which digit is in the hundreds place in 49317.20568? _____

(13) $15 \times 22 =$ _____

(14)   83670.2874 rounded to the tens place is

_____

(15)   What is the remainder for $60318 \div 5$? _____

(16)   The number of whole numbers between 103 and 125 is _____

(17) $6 \times 10^{-1} + 5 \times 10^{-2} + 1 \times 10^{-3} =$ _____ (decimal)

(18) $33 \times 7 – 33 \times 5 =$ _____

(19)   MDCLX = _____ (Arabic Numeral)

*(20) $320 \times 375 =$ _____

(21) $8 + 4 \div 2 =$ _____

(22) $16 + 14 + 12 + 10 + 8 =$ _____

(23)   72 hours = _____ days

(24)   Which is larger: 0.1 or $\dfrac{1}{9}$? _____

(25) $\dfrac{7}{12} + \dfrac{1}{12} =$ _____

(26) $19 \times 21 =$ _____

(27) $44\% =$ _____ common fraction

(28)   If 24 ♥ costs 44¢, then 36 ♥ cost _____¢

(29) $21 \div \dfrac{7}{12} =$ _____

*(30) $443 \times 359 =$ _____

(31)   16 quarters = _____ dimes

(32)   The sum of the two smallest primes greater than 30 is

_____

(33)   2 quarts = _____ ounces

(34) $1025 \div 25 =$ _____

(35) $16\dfrac{2}{3}\% =$ _____ common fraction

(36)   The GCF of 24 and 32 is _____

(37) $97 \times 95 =$ _____

(38) $\dfrac{1}{12} + \dfrac{11}{12} - \dfrac{3}{12} =$ _____

(39) The ratio, in cents, of 2 quarters to \$2 is_____

*(40) $225 \times 439 =$_____

(41) $14^2 =$ _____

(42) $6^3 =$ _____

(43) The volume of a cube with edge 4 is _____

(44) The perimeter of an isosceles triangle with congruent sides 18 and other side 24 is _____

(45) $2^4 + 3^2 =$ _____

(46) $2\dfrac{1}{8} \times 6\dfrac{1}{8} =$_____(mixed number)

(47) What is the volume of a rectangular box that is 8-ft by 6-ft by 11-ft? _____cubic feet

(48) $37.5\% \times 64 =$ _____

(49) If $x = \dfrac{2}{3}$, then $21 + 3x =$_____

*(50) $2023 + 2024 + 2025 =$ _____

(51) What is the number, k, in the sequence:
0, 1, 8, k, 64, 125, . . .? _____

(52) $9\dfrac{4}{5} + 6\dfrac{9}{10} =$_____(mixed number)

(53) If the radius of a circle is 48, then the circumference of the circle is _____ π

(54) If a rectangle with area 24 has a width that measures 4, then its perimeter is_____

(55) 23 (base 10) =_____(base 3)

(56) The number of days in September is _____

(57) What is the area of a triangle with altitude $4\dfrac{1}{2}$ and base 24? _____

(58) How many elements are in the power set for {0, 2, 4, 6, 8}?_____

(59) If three times a whole number, minus nine, is thirty-three, what is the number? _____

*(60) 150 yards =_____inches

(61) 1011 (base 2) = _____ (base 8)

(62) $12 + -2^4 \times (-4) =$ _____

(63) What is the probability a blue marble is randomly picked from a bag of 6 blue and 8 red marbles?_____

(64) 25 cups = _____ounces

(65) $72^2 =$_____

(66) $9^6 \div 7$ has remainder of_____

(67) The area of a rhombus with diagonals 18 and 24 is
_____

(68) If $18 - 3x > 54$, then $x <$ _____

(69) $2\dfrac{1}{42} - \dfrac{7}{6} =$ _____

*(70) $\sqrt{130321} =$ _____

(71) The additive inverse of $6\dfrac{1}{2}$ is _____

(72) $88^2 - 12^2 =$ _____

(73) If $9\dfrac{3}{4}\%$ of x is $3\dfrac{1}{4}\%$ of 6, then $x =$_____

(74) $1^0 + 2^1 + 3^2 + 4^3 =$_____

(75) $33^2 + 11^2 =$ _____

(76) $(2 + 4 + 6 + \ldots + 10)^2 =$_____

(77) What is the area of a right triangle with hypotenuse 13 and leg 5? _____

(78) $\sqrt{576} \times \sqrt{625} =$_____

(79) $24 + 24^2 =$_____

*(80) $25^4 =$ _____

2023 – 2024 University Interscholastic League Elementary Number Sense Test A – Key

(1) 47

(2) 47

(3) 44

(4) 112

(5) 52

(6) 173

(7) 33

(8) 473

(9) 104

*(10) 4370 – 4830

(11) 800

(12) 3

(13) 330

(14) 83670

(15) 3

(16) 21

(17) .651

(18) 66

(19) 1660

*(20) 114000 – 126000

(21) 10

(22) 60

(23) 3

(24) $\dfrac{1}{9}$

(25) $\dfrac{2}{3}$

(26) 399

(27) $\dfrac{11}{25}$

(28) 66

(29) 36

*(30) 151086 – 166988

(31) 40

(32) 68

(33) 64

(34) 41

(35) $\dfrac{1}{6}$

(36) 8

(37) 9215

(38) $\dfrac{3}{4}$; .75

(39) $\dfrac{1}{4}$; .25

*(40) 93837 – 103713

(41) 196

(42) 216

(43) 64

(44) 60

(45) 25

(46) $13\dfrac{1}{64}$

(47) 528

(48) 24

(49) 23

*(50) 5769 – 6375

(51) 27

(52) $16\dfrac{7}{10}$

(53) 96

(54) 20

(55) 212

(56) 30

(57) 54

(58) 32

(59) 14

*(60) 5130 – 5670

(61) 13

(62) 76

(63) $\dfrac{3}{7}$

(64) 200

(65) 5184

(66) 1

(67) 216

(68) -12

(69) $\dfrac{6}{7}$

*(70) 343 – 379

(71) $-6\dfrac{1}{2}$; -6.5; $-\dfrac{13}{2}$

(72) 7600

(73) 2

(74) 76

(75) 1210

(76) 900

(77) 30

(78) 600

(79) 600

*(80) 371094 – 410156

Note: *(Number) x – y means an integer between x and y inclusive.

If an answer is of the type like $\dfrac{2}{3}$ it cannot be written as .666… or $.\overline{6}$.

Contestant's Number _____

Final _____ _____
2nd _____ _____
1st _____ _____
Score **Initials**

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The person conducting this contest should explain these directions to the contestants.
Stop – Wait for Signal!

(1) $16 + 32 =$ _____

(2) $79 + 29 =$ _____

(3) $85 - 23 =$ _____

(4) $336 \div 3 =$ _____

(5) $17 \times 5 =$ _____

(6) $614 - 47 =$ _____

(7) $8 + 15 + 22 =$ _____

(8) $11 \times 27 =$ _____

(9) $720 \div 9 =$ _____

*(10) $2304 + 699 =$ _____

(11) $17 \times 25 =$ _____

(12) Which digit is in the ten-thousands place in 49317.20568? _____

(13) $64 \times 15 =$ _____

(14) 83670.2874 rounded to the hundredths place is _____ decimal

(15) What is the remainder for $700126 \div 9$? _____

(16) The number of even whole numbers between 343 and 358 is _____

(17) $1\times10^{-2} + 4\times10^{-4} =$ _____ (decimal)

(18) $26 \times 11 - 11 \times 21 =$ _____

(19) MMLIX = _____ (Arabic Numeral)

*(20) $625 \times 239 =$ _____

(21) $18 - 6 \div 3 =$ _____

(22) $11 + 15 + 19 + 23 =$ _____

(23) 12 weeks = _____ days

(24) Which is larger: 0.33 or $\dfrac{1}{3}$? _____

(25) $\dfrac{21}{24} - \dfrac{5}{24} =$ _____

(26) $28 \times 32 =$ _____

(27) $68\% =$ _____ common fraction

(28) If 48 ♥ costs 44¢, then 36 ♥ cost _____ ¢

(29) $24 \div \dfrac{3}{8} =$ _____

*(30) $360 \times 667 =$ _____

(31) 75 nickels = _____ quarters

(32) The sum of the two largest primes less than 50 is _____

(33) 32 ounces = _____ cups

(34) $975 \div 25 =$ _____

(35) $8\dfrac{1}{3}\% =$ _____ common fraction

(36) The LCM of 18 and 36 is _____

(37) $93 \times 94 =$ _____

(38) $\dfrac{7}{24} + \dfrac{11}{24} - \dfrac{9}{24} =$ _____

(39) The ratio, in cents, of 5 dimes to 3 quarters is _____

*(40) $161 \times 224 =$ _____

(41) $4^3 =$ _____

(42) $22^2 =$ _____

(43) The volume of a cube with edge 3 is _____

(44) The perimeter of an isosceles triangle with congruent sides 12 and other side 16 is _____

(45) $2^5 - 3^3 =$ _____

(46) $9\dfrac{1}{4} \times 7\dfrac{1}{4} =$ _____(mixed number)

(47) What is the volume of a rectangular box that is 2.25-ft by 8-ft by 11-ft? _____cubic feet

(48) $120 \times 12.5\% =$ _____

(49) If $x = \dfrac{3}{4}$, then $15 - 8x =$ _____

*(50) $24 \times 2024 + 2025 =$ _____

(51) What is the number, k, in the sequence: 0, 1, 1, 2, 3, 5, 8, k, 21, 34, . . .? _____

(52) $12\dfrac{3}{5} - 6\dfrac{9}{10} =$ _____(mixed number)

(53) If the diameter of a circle is 48, then the area of the circle is _____π

(54) If a rectangle with area 32 has a length that measures 8, then its perimeter is_____

(55) 46 (base 10) =_____(base 5)

(56) The number of days in December is _____

(57) What is the area of a triangle with altitude $4\dfrac{1}{3}$ and base 12? _____

(58) How many elements are in the power set for {A, U, S, T, I, N}? _____

(59) If three times a whole number, added to six, is thirty-nine, what is the number?_____

*(60) 1 mile =_____inches

(61) 1110 (base 2) = _____ (base 8)

(62) $18 - (-2^3) \times (2) =$ _____

(63) What is the probability a red marble is randomly picked from a bag of 16 blue and 8 red marbles?_____

(64) 4.25 gallons = _____pints

(65) $82^2 =$ _____

(66) $10^6 \div 8$ has remainder of_____

(67) What is the perimeter of a rhombus with side 4.125? _____

(68) If $6x - 14 > 58$, then $x >$ _____

(69) $2\dfrac{4}{15} - \dfrac{5}{3} =$ _____

*(70) $\sqrt{79524} =$ _____

(71) The multiplicative inverse of $4\dfrac{3}{8}$ is _____

(72) $16^2 - 24^2 =$ _____

(73) If $6\dfrac{1}{2}\%$ of 12 is $2\dfrac{1}{6}\%$ of x, then $x =$ _____

(74) $1^0 - 2^1 + 3^2 - 4^3 =$ _____

(75) $8^2 + 24^2 =$ _____

(76) $(1 + 3 + 5 + \ldots + 11)^2 =$ _____

(77) What is the area of a right triangle with hypotenuse 15 and leg 9? _____

(78) $\sqrt{361} \times \sqrt{441} =$ _____

(79) $29 + 29^2 =$ _____

*(80) $15^4 =$ _____

2023 – 2024 University Interscholastic League Elementary Number Sense Test B – Key

(1) 48

(2) 108

(3) 62

(4) 112

(5) 85

(6) 567

(7) 45

(8) 297

(9) 80

*(10) 2853 – 3153

(11) 425

(12) 4

(13) 960

(14) 83670.29

(15) 7

(16) 7

(17) .0104

(18) 55

(19) 2059

*(20) 141907 – 156843

(21) 16

(22) 68

(23) 84

(24) $\dfrac{1}{3}$

(25) $\dfrac{2}{3}$

(26) 896

(27) $\dfrac{17}{25}$

(28) 33

(29) 64

*(30) 228114 – 252126

(31) 15

(32) 90

(33) 4

(34) 39

(35) $\dfrac{1}{12}$

(36) 36

(37) 8742

(38) $\dfrac{3}{8}$; .375

(39) $\dfrac{2}{3}$

*(40) 34261 – 37867

(41) 64

(42) 484

(43) 27

(44) 40

(45) 5

(46) $67\dfrac{1}{16}$

(47) 198

(48) 15

(49) 9

*(50) 48071 – 53131

(51) 13

(52) $5\dfrac{7}{10}$

(53) 576

(54) 24

(55) 141

(56) 31

(57) 26

(58) 64

(59) 11

*(60) 60192 – 66528

(61) 16

(62) 34

(63) $\dfrac{1}{3}$

(64) 34

(65) 6724

(66) 0

(67) 16.5; $16\dfrac{1}{2}$; $\dfrac{33}{2}$

(68) 12

(69) $\dfrac{3}{5}$; .6

*(70) 268 – 296

(71) $\dfrac{8}{35}$

(72) -320

(73) 36

(74) -56

(75) 640

(76) 1296

(77) 54

(78) 399

(79) 870

*(80) 48094 – 53156

Note: *(Number) x – y means an integer between x and y inclusive.

If an answer is of the type like $\dfrac{2}{3}$ it cannot be written as .666… or $.\overline{6}$.

Contestant's Number _____

Final _____ _____
2nd _____ _____
1st _____ _____
Score **Initials**

Read Directions Carefully **Do Not Unfold This Sheet**
Before Beginning Test **Until Told to Begin**

Directions: Do not turn this page until the person conducting this test gives the signal to begin. This is a ten-minute test. There are 80 problems. Solve accurately and quickly as many as you can in the order in which they appear. **ALL PROBLEMS ARE TO BE SOLVED MENTALLY**. Make no calculations with paper and pencil. Write only the answer in the space provided at the end of each problem. Problems marked with a (*) require approximate integral answers; any answer to a starred problem that is within five percent of the exact answer will be scored correct; all other problems require exact answers.

The person conducting this contest should explain these directions to the contestants.
Stop – Wait for Signal!

(1) $13 + 51 =$ _____

(2) $28 + 86 =$ _____

(3) $96 - 44 =$ _____

(4) $510 \div 5 =$ _____

(5) $19 \times 7 =$ _____

(6) $703 - 54 =$ _____

(7) $9 + 12 + 15 =$ _____

(8) $11 \times 45 =$ _____

(9) $360 \div 4 =$ _____

*(10) $2023 + 599 =$ _____

(11) $18 \times 25 =$ _____

(12) Which digit is in the ten-thousandths place in 49317.20568? _____

(13) $44 \times 15 =$ _____

(14) 83670.2874 rounded to the tenths place is _____ decimal

(15) What is the remainder for $70226 \div 9$? _____

(16) The number of even whole numbers between 104 and 118 is _____

(17) $2 \times 10^{-2} + 9 \times 10^{-3} =$ _____ (decimal)

(18) $32 \times 12 - 12 \times 28 =$ _____

(19) MMDIX = _____ (Arabic Numeral)

*(20) $625 \times 120 =$ _____

(21) $9 - 6 \div 3 =$ _____

(22) $13 + 17 + 21 + 25 =$ _____

(23) 13 weeks = _____ days

(24) Which is larger: 0.66 or $\frac{2}{3}$? _____

(25) $\frac{17}{24} - \frac{5}{24} =$ _____

(26) $18 \times 22 =$ _____

(27) $72\% =$ _____ common fraction

(28) If 48 ♥ costs 60¢, then 36 ♥ cost _____ ¢

(29) $48 \div \frac{3}{8} =$ _____

*(30) $120 \times 667 =$ _____

(31) 60 nickels = _____ quarters

(32) The sum of the two largest primes less than 40 is _____

(33) 40 ounces = _____ cups

(34) $825 \div 25 =$ _____

(35) $41\frac{2}{3}\% =$ _____ common fraction

(36) The LCM of 12 and 24 is _____

(37) $91 \times 95 =$ _____

(38) $\dfrac{11}{24} + \dfrac{7}{24} - \dfrac{3}{24} =$ _____

(39) The ratio, in cents, of 6 dimes to 3 quarters is _____

*(40) $232 \times 225 =$ _____

(41) $5^3 =$ _____

(42) $23^2 =$ _____

(43) The volume of a cube with edge 5 is _____

(44) The perimeter of an isosceles triangle with congruent
       sides 18 and other side 24 is _____

(45) $4^3 - 3^3 =$ _____

(46) $4\dfrac{1}{2} \times 2\dfrac{1}{2} =$ _____(mixed number)

(47) What is the volume of a rectangular box that is
       2.25-ft by 4-ft by 12-ft? _____cubic feet

(48) $800 \times 12.5\% =$ _____

(49) If $x = \dfrac{3}{4}$, then $24 - 4x =$ _____

*(50) $10 \times 2024 + 2025 =$ _____

(51) What is the number, k, in the sequence:
       0, 1, 1, 2, 3, 5, k, 13, 21, . . .? _____

(52) $8\dfrac{1}{5} - 5\dfrac{7}{10} =$ _____(mixed number)

(53) If the diameter of a circle is 44, then the area of the
       circle is _____π

(54) If a rectangle with area 28 has a length that measures
       14, then its perimeter is_____

(55) 48 (base 10) =_____(base 5)

(56) The number of days in March is_____

(57) What is the area of a triangle with altitude $4\dfrac{1}{3}$ and
       base 18? _____

(58) How many elements are in the power set for
       {T, E, N}?_____

(59) If four times a whole number, added to six, is
       thirty-eight, what is the number? _____

*(60) 12 miles =_____yards

(61) 1001 (base 2) = _____ (base 8)

(62) $18 - (-2^4) \times (2) =$ _____

(63) What is the probability a red marble is randomly
       picked from a bag of 22 blue and 8 red marbles?____

(64) 4.75 gallons = _____pints

(65) $69^2 =$ _____

(66) $10^5 \div 8$ has remainder of_____

(67) What is the perimeter of a rhombus with side 6.125?
       _____

(68) If $6x - 14 > 46$, then $x >$ _____

(69) $2\dfrac{4}{35} - \dfrac{7}{5} =$ _____

*(70) $\sqrt{115600} =$ _____

(71) The multiplicative inverse of $4\dfrac{5}{8}$ is _____

(72) $21^2 - 29^2 =$ _____

(73) If $6\dfrac{1}{2}\%$ of 12 is $1\dfrac{5}{8}\%$ of x, then $x =$ _____

(74) $1^0 + 2^1 - 3^2 + 4^3 =$ _____

(75) $12^2 + 36^2 =$ _____

(76) $(2 + 4 + 6 + . . . + 10)^2 =$ _____

(77) What is the area of a right triangle with hypotenuse
       26 and leg 24? _____

(78) $\sqrt{324} \times \sqrt{484} =$ _____

(79) $39 + 39^2 =$ _____

*(80) $16^4 =$ _____

2023 – 2024 University Interscholastic League Elementary Number Sense Test C – Key

(1)	64	*(20)	71250 – 78750	(38)	$\frac{5}{8}$; .625	(59)	8
(2)	114	(21)	7			*(60)	20064 – 22176
(3)	52	(22)	76	(39)	$\frac{4}{5}$; .8	(61)	11
(4)	102	(23)	91			(62)	50
(5)	133	(24)	$\frac{2}{3}$	*(40)	49590– 54810	(63)	$\frac{4}{15}$
(6)	649			(41)	125		
(7)	36	(25)	$\frac{1}{2}$; .5	(42)	529	(64)	38
(8)	495			(43)	125	(65)	4761
(9)	90	(26)	396	(44)	60	(66)	0
*(10)	2491 – 2753	(27)	$\frac{18}{25}$	(45)	37	(67)	24.5; $24\frac{1}{2}$; $\frac{49}{2}$
(11)	450			(46)	$11\frac{1}{4}$		
(12)	6	(28)	45			(68)	10
(13)	660	(29)	128	(47)	108	(69)	$\frac{5}{7}$
(14)	83670.3	*(30)	76038– 84042	(48)	100		
(15)	8	(31)	12	(49)	21	*(70)	323 – 357
(16)	6	(32)	68	*(50)	21152 – 23378	(71)	$\frac{8}{37}$
(17)	.029	(33)	5	(51)	8		
(18)	48	(34)	33	(52)	$2\frac{1}{2}$	(72)	-400
(19)	2509	(35)	$\frac{5}{12}$			(73)	48
		(36)	24	(53)	484	(74)	58
		(37)	8645	(54)	32	(75)	1440
				(55)	143	(76)	900
				(56)	31	(77)	120
				(57)	39	(78)	396
				(58)	8	(79)	1560
						*(80)	62260 – 68812

Note: *(Number) x – y means an integer between x and y inclusive.

If an answer is of the type like $\frac{2}{3}$ it cannot be written as .666… or $.\overline{6}$.

Contestant Number _____   Contestant Name _____
(to be filled in after judging)

UIL A+ Ready Writing Evaluation Sheet: Elementary, Middle School, and Junior High

Evaluation criteria are listed in the order of importance. Write the number that indicates the quality in each of the sub-areas and tally the points.

(50%) _____/100
INTEREST: Writing exhibits originality of thought, analytical acuteness and overall coherence of exposition.

	POOR	**FAIR**	**GOOD**	**EXCELLENT**
Perceptive ideas	_____/7	_____/13	_____/19	_____/25
Originality	_____/7	_____/13	_____/19	_____/25
Examples	_____/7	_____/13	_____/19	_____/25
Title	_____/7	_____/13	_____/19	_____/25

(35%) _____/70
ORGANIZATION: Each paragraph develops a clear idea or ideas and contributes to an understanding of the prompt.

	POOR	**FAIR**	**GOOD**	**EXCELLENT**
Student answers prompt consistently *(either through supporting details, thesis, and/or plot points and character development)*	_____/3	_____/7	_____/11	_____/14
Well-developed paragraphs, focused on an idea or ideas	_____/3	_____/7	_____/11	_____/14
Transition	_____/3	_____/7	_____/11	_____/14
Support for student's response to prompt	_____/3	_____/7	_____/11	_____/14
Composition clarity (as a whole)	_____/3	_____/7	_____/11	_____/14

(**15%**) _____/30
CORRECTNESS OF STYLE: Writing avoids errors in sentence structure, punctuation, grammar, word usage and spelling that hinder clear communication.

	POOR	**FAIR**	**GOOD**	**EXCELLENT**
Punctuation	_____/1	_____/3	_____/5	_____/6
Sentence structure	_____/1	_____/3	_____/5	_____/6
Grammar	_____/1	_____/3	_____/5	_____/6
Word Usage	_____/1	_____/3	_____/5	_____/6
Spelling	_____/1	_____/3	_____/5	_____/6

TOTAL SCORE: _____/200

CONSTRUCTIVE COMMENTS FOR THE CONTESTANT:
Please read "Instructions for the Judges" for Ready Writing Writing before evaluating contestants' papers. While judges are to consider all three elements in selecting the most effective compositions, they should weigh interest more than organization, and organization more than correctness of style.

AREAS NEEDING IMPROVEMENT:

*Judge's signature*_____

2023-24 A+ Ready Writing

INVITATIONAL

INSTRUCTIONS

Choose **one** of the following topics. Write the topic you have chosen at the top of your paper. **You should also include an original, creative title for your paper.** Remember you should not use your real name or that of your school.

THIRD AND FOURTH GRADES

Topic: *My Superpower*

Think about what superpower you would choose to have if you could. Write an essay explaining the superpower and explain how you would use it.

Topic: *An elephant, an umbrella, and a magic wand*

Write a story that includes an elephant, an umbrella, and a magic wand. You may be as creative as you would like.

2023-24 A+ Ready Writing

INVITATIONAL

INSTRUCTIONS

Choose **one** of the following topics. Write the topic you have chosen at the top of your paper. **You should also include an original, creative title for your paper.** Remember you should not use your real name or that of your school.

FIFTH AND SIXTH GRADES

Topic: *Teamwork Benefits*

Think about the word teamwork. Next, write an essay explaining what teamwork means and how it benefits a situation.

Topic: *Social Media Impact*

Think about the impact of social media. In an essay, explain the impact of social media on society and whether it has a positive or negative impact.

2023-24 A+ Ready Writing

FALL/WINTER DISTRICT

INSTRUCTIONS

Choose **one** of the following topics. Write the topic you have chosen at the top of your paper. **You should also include an original, creative title for your paper.** Remember you should not use your real name or that of your school.

THIRD AND FOURTH GRADES

Topic: *Free Time*

There are many things people like to do with their free time. Write an essay explaining what you like to do with your free time.

Topic: *Life in the Circus*

Imagine what the day in the life of a circus performer is like. Write an essay explaining the life of a circus performer being as creative as you would like.

2023-24 A+ Ready Writing

FALL/WINTER DISTRICT

INSTRUCTIONS

Choose **one** of the following topics. Write the topic you have chosen at the top of your paper. **You should also include an original, creative title for your paper.** Remember you should not use your real name or that of your school.

FIFTH AND SIXTH GRADES

Topic: *Giving Back*

In your opinion, why is it important to give back to the community? Write an essay explaining your opinion making sure to give reasons for your thoughts.

Topic: *Work and Luck*

Thomas Jefferson said, "I find that the harder I work, the more luck I seem to have." Write about what you think this quote means and apply it to your life in some way.

2023-24 A+ Ready Writing

SPRING DISTRICT

INSTRUCTIONS

Choose **one** of the following topics. Write the topic you have chosen at the top of your paper. **You should also include an original, creative title for your paper.** Remember you should not use your real name or that of your school.

THIRD AND FOURTH GRADES

Topic: *New Skill*

Think about a skill you would like to learn like riding a bike, playing an instrument, or juggling. Write an essay describing the skill and why you are interested in learning it.

Topic: *Alien Conversation*

Imagine you met an alien. Write an essay explaining the questions you would ask the alien and the responses you think you would receive.

2023-24 A+ Ready Writing

SPRING DISTRICT

INSTRUCTIONS

Choose **one** of the following topics. Write the topic you have chosen at the top of your paper. **You should also include an original, creative title for your paper.** Remember you should not use your real name or that of your school.

FIFTH AND SIXTH GRADES

Topic: *Another's Shoes*

Someone once said, "Before you judge another person, walk a mile in his/her shoes." Think about what this quote means. Next, write an essay explaining the quote's meaning and how you can apply it to your own life.

Topic: *The Antagonist's Story*

Think of a well-known antagonist (the main opponent of the main character) in literature such as Cinderella's wicked stepmother, Gaston from *The Beauty and the Beast*, Scar from *The Lion King*, or Ursula from *The Little Mermaid*. Next, write a story from that character's point of view explaining what "really happened" according to the character you chose.

FOR GRADER USE ONLY
Score Test Below:

_____ Initials_____

_____ Initials_____

Papers contending to place:

_____ Initials_____

University Interscholastic League
A+ Science Contest • Answer Sheet

Write your contestant number in the upper right corner and circle your grade level below.

Circle Grade Level: 6th grade   7th grade   8th grade

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

16. _____

17. _____

18. _____

19. _____

20. _____

21. _____

22. _____

23. _____

24. _____

25. _____

26. _____

27. _____

28. _____

29. _____

30. _____

31. _____

32. _____

33. _____

34. _____

35. _____

36. _____

37. _____

38. _____

39. _____

40. _____

41. _____

42. _____

43. _____

44. _____

45. _____

46. _____

47. _____

48. _____

49. _____

50. _____

INVITATIONAL 2023-2024

A+ ACADEMICS

University Interscholastic League

Science

DO NOT OPEN TEST
UNTIL TOLD TO DO SO

UNIVERSITY INTERSCHOLASTIC LEAGUE
2022-2023 SCIENCE
INVITATIONAL TEST

1. Use the image and the Dichotomous key to correctly identify the whale shown.
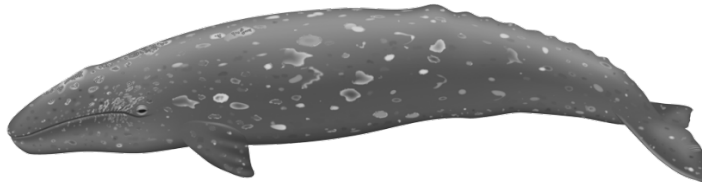
1a. Mouth with baleen (no teeth)... 6
1b. Mouth with teeth (no baleen)... 2
2a. Large melon (head) .... Sperm Whale
2b. Small rounded head... 3
3a. Distinct black and white markings on body..Orca
3b. Body mostly gray 4
4a. Has defined beak or "snout"..Bottlenose Dolphin
4b. No beak, rounded "snout" 6
5a. Specked markings on sides.. Harbor Porpoise
5b. Body all gray, usually cover with scratches......................................Risso's Dolphin
6a. Long pectoral fin/flippers with knobs on fins & head.................... Humpback Whale
6b. Shorter pectoral fin/flippers, smooth fins and head.. 7
7a. White band on pectoral fin/flipper ....Minke Whale
7b. No white band on pectoral fin/flipper.. 8
8a. Body covered in barnacles, no dorsal fin, has dorsal knuckles…………Gray Whale
8b. No barnacle growth on body, dorsal fin present... 9
9a. Body solid blue color ....Blue Whale
9b. Body with gray and white patterns .... Fin Whale

    A. Orca   C. Fin Whale
    B. Gray Whale   D. Minke Whale

2. Which of the following is not an element?
    A. Sodium   C. Chlorine
    B. Oxygen   D. Water

3. A student finds a solid, reflective material laying on the ground. After experimenting with the material, it is determined that it is not a good conductor of electricity and it is not ductile. The material is most likely –
    A. Metal
    B. Metalloid
    C. Non metal
    D. New state of matter

4. An industry needs a metal with a density of 3.6 g/cm3. Which sample was selected based on the data shown?

	Mass	Volume
Metal 1	5	2.5
Metal 2	8	1.2
Metal 3	3	6
Metal 4	9	2.5

    A. Metal 1
    B. Metal 2
    C. Metal 3
    D. Metal 4

5. Which energy transformation produces electricity without causing pollution?
    A. Using a natural gas heart during the winter
    B. Using coal in a power plant
    C. Using wind to turn a windmill
    D. Using gas to power a generator while camping

6. When a truck hydroplanes on water, it is difficult to control the motion of the truck. Which statement best explains this?
    A. An applied force pushes the car in the opposite way
    B. The input force exceeds the output force
    C. The water supplies an unbalanced force to the tires
    D. The water doesn't supply enough friction to the tires

7. Many common objects are simple machines or compound machines. Which of the following uses a pulley system?
    A. Flag pole
    B. See saw
    C. Wheelbarrow
    D. Yo-yo

8. What type of heat transfer is responsible for a radiator heating the room in a house during the winter?
    A. Thermal energy
    B. Convection
    C. Conduction
    D. Radiation

9. Which best defines the type of rock that completely melts and then cools?
   A. Metamorphic
   B. Igneous
   C. Basalt
   D. Sedimentary

10. Which of the following is not caused by the movement of the crustal plates?
    A. Volcanic eruption
    B. Hurricanes
    C. Mountain formation
    D. Seismic activity

11. Based on the order of the planets in the milky way galaxy; which planet will have the shortest year?
    A. Mars
    B. Earth
    C. Mercury
    D. Venus
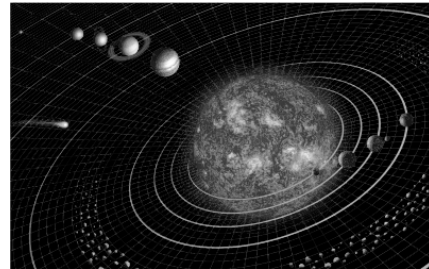
12. Blue Origin is a company that intends on sending humans to space. Which of the following would not a concern for this company?
    A. The position of Earth in its revolution around the Sun
    B. The weather conditions at the time of the launch
    C. Angle of reentry to the atmosphere
    D. Resources needed for the entire mission

13. What basic characteristic divides the organisms in Kingdom A and B?

Kingdom A	Kingdom B
Oats	Cat
Sunflower	Tick
Tree	Worm

   A. A is multicellular and B is unicellular
   B. A is unicellular and B is multicellular
   C. A is autotrophic and B is heterotrophic
   D. A is heterotrophic and B is autotrophic

14. Thinking of *Homo sapiens*, at which classification level would you be able to determine if the organism is living?
    A. Domain
    B. Kingdom
    C. Class
    D. Phylum

15. Which of the following elements does not make up a significant part of sea water?
    A. Cl
    B. P
    C. Mg
    D. S

16. Yuccas are a dominant vegetation in Big Bend National Park. All the yuccas collectively make up the –
A. Community
B. Ecosystem
C. Population
D. Niche

17.

$$6CO_2 + 6H_2O \xrightarrow{Light} C_6H_{12}O_6 + 6O_2$$

Based on the equation provided, why is it necessary to have radiant energy?
A. Sunlight uses carbon dioxide and water to make glucose
B. The arrow represents the flow of energy in the system
C. The process cannot occur without sunlight
D. The arrow shows the direction of the sunlight

18. What provides the body with the energy it needs for growth, movement, and repair?
A. Fiber
B. Glucose
C. Nucleic acids
D. Water

19. Which of the following items needs to switch places?

Physical Changes	Chemical Changes
1. Stirring hot chocolate with a spoon	4. Precipitate formation
2. Freezing a liquid	5. Eggs cooking
3. Bubbles releasing during a reaction	

A. 1   B. 2   C. 3   D. 5

20. Gazelles are prey for lions in the savannah. A drought would most likely cause a herd of gazelles to –
A. Migrate a farther distance
B. Become more deer like in nature
C. Begin to hunt predators like lions
D. Produce a larger herd

21. In 2018, NASA released that one of Jupiter's moons might be a good place to look for possible life. Why would this be a possible place to look for life based on our current understanding?
A. The moon has an iron core similar to Earth
B. The moon is a comparable size to Earth
C. The moon has a liquid ocean
D. The moon is within the habitable zone

22. If a natural disaster occurred killing many organisms in a small aquatic environment. Which would most likely restore the biodiversity of this aquatic environment?
A. Introduce an invasive species to the environment
B. Reintroduce native species to the environment
C. Survey the aquatic organisms
D. Limit fishing in the environment

23. Frogs communicate by croaking. If a frog can to make this sound, they are less likely to find a mate to be able to reproduce. If the frog can not make a sound this would be an example of which of the following –
A. Learned behavior   C. Natural selection
B. Genetic replication   D. Succession

24. Plants do not have a circulatory system. What have they developed instead to transport carbohydrates instead?
A. Cork cells   C. Xylem
B. Chlorophyll   D. Phloem

25. The nucleus is the control center of the cell and directs all cellular activities. Which human body system is most like this?
A. Central nervous system
B. Digestive system
C. Excretory system
D. Integumentary system

26. Humans need to maintain a relativity constant internal body temperature. Which way would the body most likely respond when suddenly placed in a frigid environment?
A. Begin to sweet and increase in metabolism
B. Begin to shiver and increase in metabolism
C. Begin to sweat and decrease in metabolism
D. Begin to shiver and decrease in metabolism

27. A student hypothesizes that the color red in flowers is dominant and white is successive. Which would disprove this hypothesis?
A. Two white flowers produce offspring with red flowers
B. Two red flowers produce offspring with red flowers
C. Two red flowers produce offspring with white flowers
D. Two white flowers produce offspring with white flowers

28. The respiratory system and the circulatory systems both move oxygen in the human body. Which best explains why there are two body systems to move oxygen in the human body?
   A. One transports oxygen into the body and one transports oxygen out of the body
   B. One transports oxygen into the torso and one transports oxygen into the legs
   C. One transports oxygen into the body and one transports oxygen inside of the body
   D. One transports oxygen while in motion and one transports oxygen while stationary

29. When a river is dammed, it will change the sediment flow in the area. Which change of sediment would be a result a result of a dam being built?
   A. Increase in sediment down river
   B. Increase in sediment just after the dam
   C. No change in sediment deposition
   D. Increase in sediment in the lake

30. Based on the image, which organelle will only be found in plant cells?
   A. Nucleus
   B. Cytoplasm
   C. Cell wall
   D. Vacuole
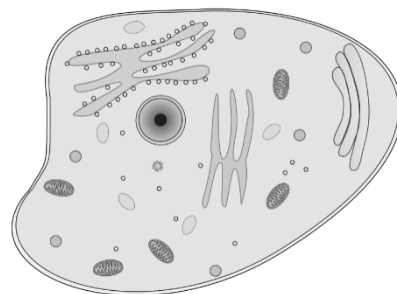
31. In a neutrally charged atom, protons, neutrons, and electrons have the same mass. This incorrect description was provided by a student. Which statement best supports why this is incorrect?
   A. The mass number is determined by adding the number of protons and electrons
   B. Protons and neutrons have atomic mass units of one while electrons are much smaller
   C. The number of protons is equal to the number of neutrons in the atom
   D. Protons and electrons are subatomic particle inside the nucleus

32. An unknown element is tested and is found to have properties similar to tin and germanium. Which element could the unknown be?
   A. Silicon
   B. Arsenic
   C. Selenium
   D. Gallium

33. Which of the following does not show a chemical reaction?
   A. Burning wood
   B. Lighting a firework
   C. Opening a carbonated drink
   D. Baking cookies

34. On a speed-time graph, how does the slope of the line show that an object is slowing down?
    A. A straight line
    B. A positive slope in a diagonal line
    C. A slope of zero
    D. A negative slope in a diagonal line

35. Four different carts each with the same mass were pushed by students during a race. The time it took for the students to complete the race is listed in the data table. Which student pushed the cart with the least amount of force?

	Time (s)
Cart A	12
Cart B	8
Cart C	17
Cart D	14

    A. 12 seconds
    B. 8 seconds
    C. 17 seconds
    D. 14 seconds

36. The diagram shows winter in North America. How would the diagram be different if it was summer in North America?
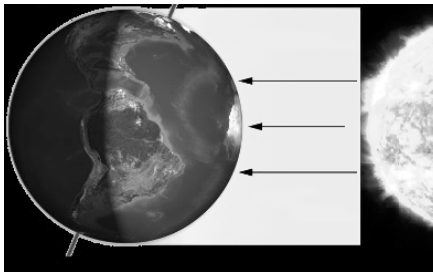
    A. It would be tilted towards the sun
    B. It would be tilted away from the sun
    C. The tilt would be fluctuating
    D. There is no tilt

37. As our sun nears the end of its life cycle, it will become a red giant and eventually a –
    A. Super nova
    B. Black hole
    C. Super giant
    D. White dwarf

38. Since 1990, this telescope has been most useful for scientist studying how stars are formed.
   A. Webster Telescope
   B. Spritzer Space Telescope
   C. Hubble Space Telescope
   D. Chandra

39. A radiator and the sun are similar in the way heat energy is transferred.
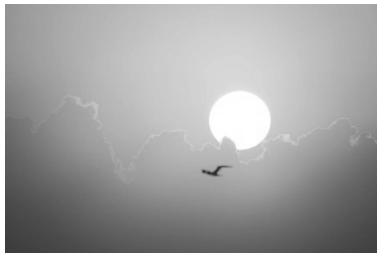
   A. Heat energy from both cause air molecules to increase in density, contract, and sink
   B. Heat energy from both cause air molecules to increase in density, expand, and rise
   C. Heat energy from both cause air molecules to decrease in density, contract, and sink
   D. Heat energy from both cause air molecules to decrease in density, expand, and rise

40. Which best explains how the oceans effect the range of daily temperature fluctuations on Earth?
   A. Ocean currents carry water from cold to warm areas
   B. Ocean currents carry water which absorbs heat during the day and releases it at night
   C. Ocean currents carry water contracts when heated and expands when cooled
   D. Ocean currents carry water evaporates during the day and condenses at night

41. Which relationship is similar to a dog and a tick?
   A. Clown fish and anemone
   B. Malaria in humans
   C. Cow and grass
   D. Bee and flowers

42. Since telescopes on Earth can only observe waves that can penetrate the atmosphere, which waves would not be observed using a telescope on the surface of Earth?
   A. Infrared
   B. Radio
   C. Ultraviolet
   D. Visible light

43. A student makes a model of a plate boundary as shown.

Which crustal feature would be most likely to be found at this location?
A. Seafloor spreading   C. Fault line
B. Mid ocean ridge   D. Mountains

44. What happens to an air mass moving from the south pole towards the equator based on the spin of the Earth?
A. It would move eastward
B. It would move westward
C. It moves back to the South
D. It moves to the nearest body of water

45. Which statement best describes the chemical formula shown?

$$C_6H_8O_7$$
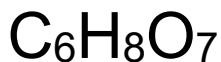
A. 8 oxygen atoms
B. 20 total atoms
C. 3 different elements
D. Doesn't contain organic elements

46. Which picture best shows the way to properly store test tubes during an laboratory experiment?

A.

C.

B.

D.
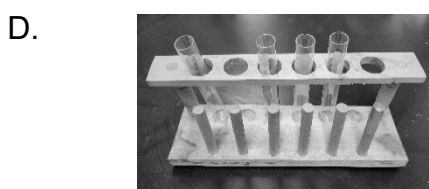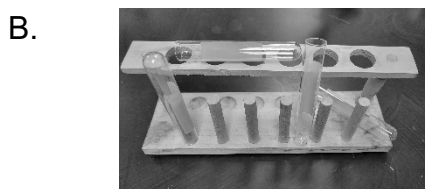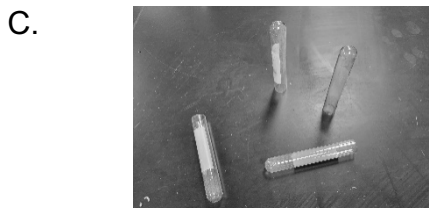
47. To make a map of a local swimming hole, students measure the depth of water at different locations by using a weighted rope to determine the measure to the bottom of the hole. What other data is needed to make the best complete map of this area?
   A. Water temperature
   B. Water pressure
   C. Position relative to the shore
   D. Depth of sunlight

48. Scientists believe that atomic interactions depend on the valence electrons in each atom. This theory is best supported by similar reactions among elements –
   A. With similar atomic numbers
   B. With similar atomic masses
   C. In the same period
   D. In the same group

49. Which scientist listed is most famous for their work with atoms?
   A. Darwin
   B. Einstein
   C. Rutherford
   D. Mendeleev

50. A biology class does a field experiment to observe the creek that is located on school grounds. Which tool should not be used to analyze the sample mentioned?
   A. Insect net
   B. Specimen jar
   C. Thermometer
   D. pH paper

UNIVERSITY INTERSCHOLASTIC LEAGUE
2023-2024 SCIENCE
INVITATIONAL TEST

Answer Key

1. B	18. B	35. C
2. D	19. C	36. A
3. B	20. A	37. D
4. D	21. C	38. C
5. C	22. B	39. D
6. D	23. C	40. B
7. A	24. D	41. B
8. B	25. A	42. A
9. A	26. B	43. D
10. B	27. A	44. A
11. C	28. C	45. C
12. A	29. D	46. D
13. C	30. C	47. C
14. A	31. B	48. D
15. B	32. A	49. C
16. C	33. C	50. A
17. C	34. D	

FALL/WINTER DISTRICT 2023-2024
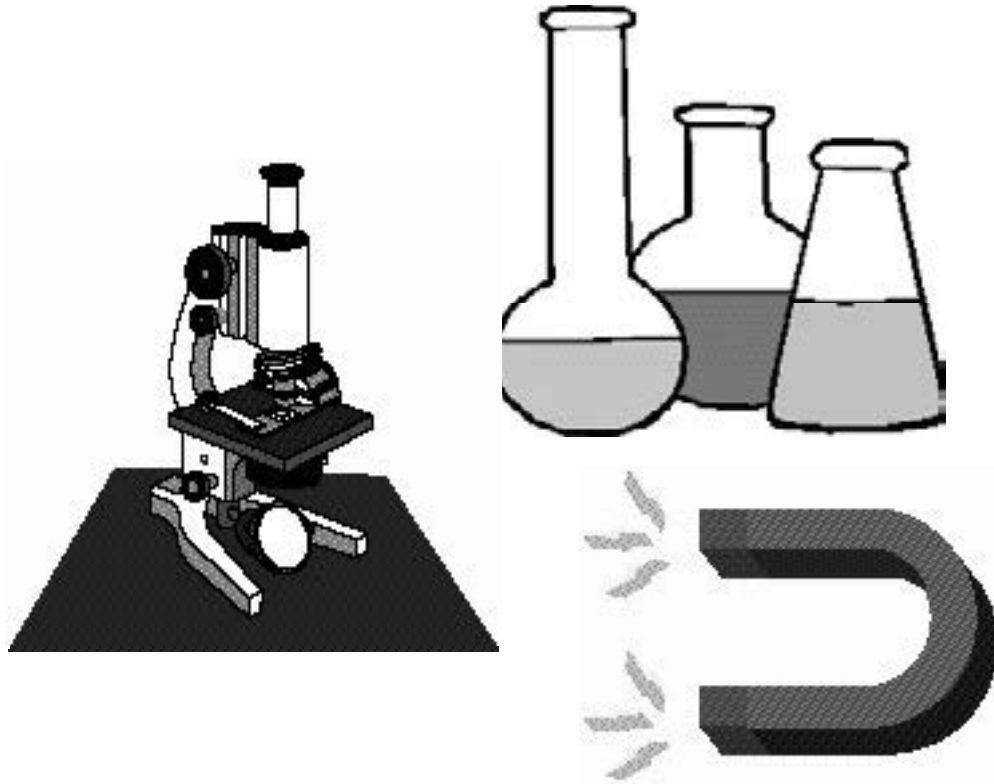
A+ ACADEMICS

University Interscholastic League

Science

DO NOT OPEN TEST
UNTIL TOLD TO DO SO

UNIVERSITY INTERSCHOLASTIC LEAGUE
2023-2024 SCIENCE
FALL/WINTER TEST

1. In order to best represent an element a teacher gathers the following materials: a box and a pack of marbles. Which of the following would be represent an element given the materials listed?
   A. Fill the box randomly with two different colors of marbles
   B. Fill the box with two different colors of marbles arranged in two columns
   C. Fill the box with one color of marbles arranged in two rows
   D. Fill the box with three different colors of marbles arranged in three columns

2. Diamonds are ranked a ten on the Mohs harness scale. Which other mineral is also at the top of this same scale?
   A. Fluorite   C. Calcite
   B. Quartz   D. Corundum

3. The graphic shoes two identical hot air balloons traveling at the same speed but separated by 75 meters in height.
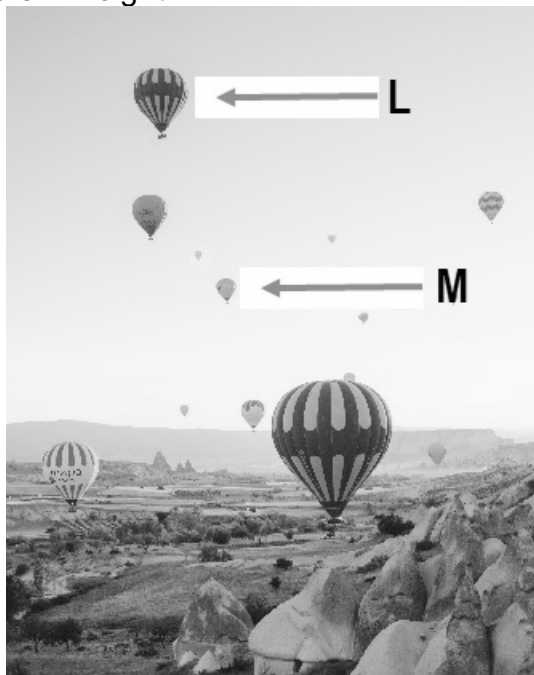
   Which of the following states applies the most?
   A. L has a higher kinetic energy
   B. Both have the same gravitational potential energy but different kinetic energy
   C. L has a higher gravitational potential energy
   D. Both have the same kinetic energy but different gravitational potential energy

4. The motion of a car on a straight section of road is recorded and graphed as shown.
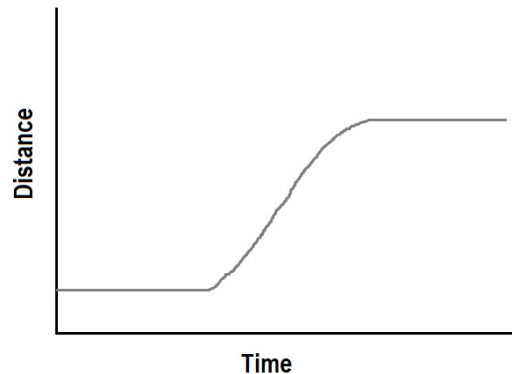
Which best describes the motion that is represented?
A. The speed increases then slows down
B. The speed decreases then the car moves backwards
C. It starts at rest and then moves at a constant speed; slows down and then stops
D. It starts at a constant speed; increases speed; stops, and then moves forward

5. What best describe what happens to the motion of particles in the air as the air temperature drops below 0° Celsius?
A. The speed of the particles decreases
B. The speed of the particle's vibration increases
C. The speed of the particles increases
D. The particles move randomly

6. Which of the following does not occur during an energy transformation?
A. Energy is not created
B. Energy changes form
C. Matter is created from energy
D. Energy is not destroyed

7. Which tectonic plates is located primarily in the Northern Hemisphere?
A. Nazca
B. Juande Fuca
C. Indo – Australian
D. Pacific Plate

8. Which of the following celestial object has the most gravity?
A. Sun
B. Jupiter
C. Earth
D. Mercury
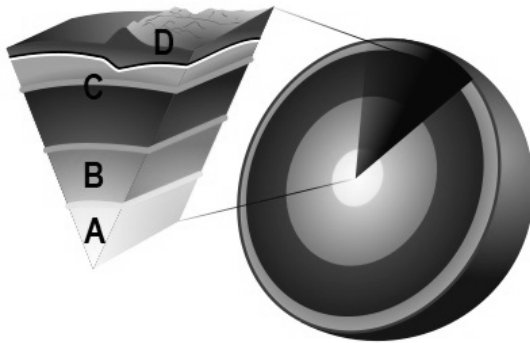
9. Using the illustration shown, what layer is best represented in C?
A. Crust
B. Outer core
C. Inner core
D. Mantle

10. Bacteria cells are best matched to which type of cell?

A. Fungal
B. Eukaryote
C. Prokaryote
D. Virus
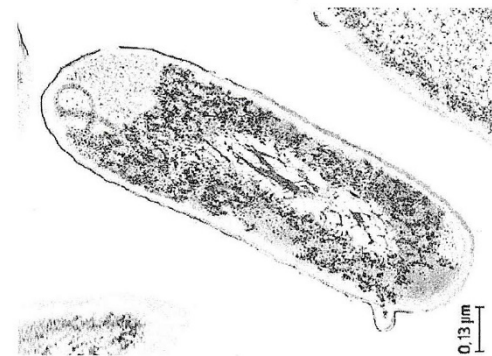
11. Which of the following best represents an abiotic change?
A. Cloud covered sky during the day keeps the temperature lower
B. Elephants consuming 8 kg of hay
C. Increase in coyote population followed by a reduction in deer populations
D. Decline in flowers due to decrease in natural pollinators

12. Plans for a new subdivision are being developed. The city council wants it to run on "green" energy, meaning the energy must not come from fossil fuels. Based on your understanding of energy resources, which of the following would be most practical for the new subdivision?
A. Use a coal burning plant to generate electricity
B. Only use wind energy to generate electricity
C. Use mostly solar energy to generate electricity
D. Use a nuclear power plant to generate electricity

13. What is the speed of a vehicle that travels for thirty minutes and is displaced fifteen miles?
A. .5 mph   C. 2 mph
B. 30 mph   D. 450 mph

14. Some trucks require gasoline to be put into the tank to burn in order for it to operate and move. The battery provides the energy for other functions of the vehicle. Which type of energy is not used in the description provided?
   A. Chemical
   B. Electrical
   C. Kinetic
   D. Nuclear

15. Based on the following descriptions, which type of plate boundary does it most likely refer to?

   - Quakes shaking the ground

   - Creation of a fault line

   - Plates sliding past one another

   A. Convergent
   B. Transform
   C. Divergent

16. What part of a seedling demonstrates a negative response to a gravitational force?
   A. Stem
   B. Leaves
   C. Roots
   D. Shoot

17. When space crafts reenter the atmosphere, the kinetic energy is transformed into thermal energy to aide in slowing down the space craft. Which of the following will allow the craft to survive the heat experienced during reentry?
   A. Guidance system
   B. Heat shield
   C. Parachute
   D. Air conditioner

18. Dallas and Fort Worth are both in the same drainage basin. What is the most likely reason the water in the Trinity River is dirtier in Houston as opposed to in the DFW metroplex?
    A. Pollutants from the coastal line enter the river
    B. Cross contamination from other pollutants
    C. Increased pollutants from humans
    D. Decreased pollutants from wildlife
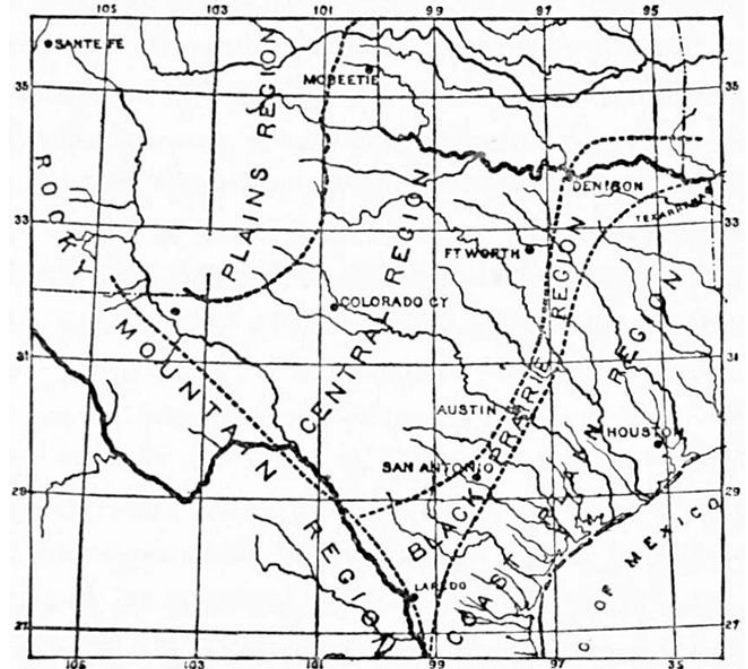
19. Which plants would most likely be found in a deciduous forest?

Biome 1 Description	Most of the trees are broadleaf trees such as oak, maple, beech, hickory and chestnut. There are also several different kinds of plants like mountain laurel, azaleas and mosses that live on the shady forest floor.
Biome 2 Description	It is known for its dense canopies of vegetation that form three different layers. The top layer or canopy contains giant trees that grow to heights of 75 m (about 250 ft) or more. This layer of vegetation prevents much of the sunlight from reaching the ground. Thick, woody vines are also found in the canopy. They climb trees in the canopy to reach for sunlight. The middle layer, or understory, is made up of vines, smaller trees, ferns, and palms. The bottom layer or floor of the rainforest is covered with wet leaves and leaf litter.
Biome 3 Description	The shrublands are made up of shrubs or short trees. Many shrubs thrive on steep, rocky slopes. There is usually not enough rain to support tall trees. Shrublands are usually fairly open so grasses and other short plants grow between the shrubs.
Biome 4 Description	Consist mostly of conifers, which are trees that grow needles instead of leaves and cones instead of flowers. Conifers tend to be evergreen— they bear needles all year long. These adaptations help conifers survive in areas that are very cold or dry. Some of the more common conifers are spruces, pines, and firs.

    A. Biome 1
    B. Biome 2
    C. Biome 3
    D. Biome 4

20. Some species of flowers have markings that are visible only to organisms with the ability to see in the ultraviolet light part of the electromagnetic spectrum. These marks help the plant to:
    A. Avoid predation
    B. Attract pollinators
    C. Obtain nutrients
    D. Create pungent smells

21. Which human body system performs a function most similar to that of the vascular system of a plant?
    A. Immune
    B. Circulatory
    C. Digestive
    D. Respiratory

22. On the first day of track practice, the coach made everyone run 800 meters to warm up. When finished, most everyone was breathing heavily and sweating. Which of these doesn't explain why this occurred?
    A. Running requires increases oxygen; it also produces increased carbon dioxide waste
    B. Running requires energy, burning more stored energy, which generates increased body heat
    C. Breathing brings in more carbon dioxide and removes excess oxygen from the body
    D. Perspiration cools the body by evaporating water from the sweat glands

23. Which of the following best explains what most likely occurred during the time from A to B shown in the graph?

    A. At "A" a natural disaster, such as a fire, occurred and succession is taking place between time A & B.
    B. At "A" clear cutting for a parking lot occurred and grass begins to grow between time A and B
    C. At "B" a natural disaster, such as a fire, occurred and succession is taking place between time A & B.
    D. At "B" clear cutting for a parking lot occurred and grass begins to grow between time A and B
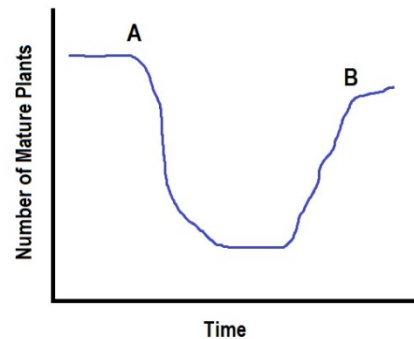
24. Which is an advantage of sexual reproduction over asexual reproduction?
    A. Allows offspring to look just like the parent
    B. Ensures all offspring survive a natural disaster
    C. Allows the species to adapt to environmental changes
    D. Transfers genetic information from only one parent to the offspring
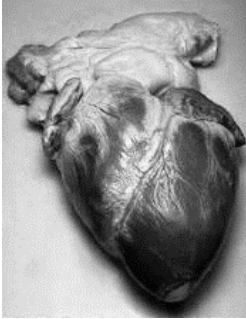
25. This image best represents which part of the cell theory?
    A. All cells come from preexisting cells
    B. All organisms are composed of one or more cells
    C. A cell is the basic unit of structure and function
    D. All cells have the ability to adapt

26. Which part of a cell determines the sex of the organisms?
    A. 1
    B. 2
    C. 3
    D. 4
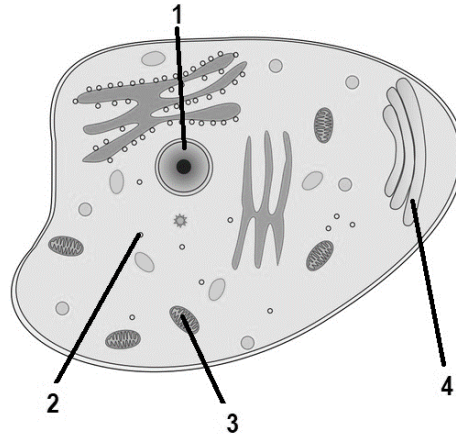
27. Which of the following converts light energy to chemical energy?
    A. Light bulb in a lamp
    B. Battery of a portable gaming device
    C. Solar panels
    D. Leaf on a tree

28. An example of an organism that breaks down organic material could be called —
    A. Autotroph   C. Predator
    B. Decomposer   D. Scavenger

29. A cube of sugar is placed in a pot of water. Initially, the sugar is at the bottom of the pot but once gradually heated it disappears. Which statement best explains what type of change occurred?
    A. chemical, irreversible change   C. physical, reversible change
    B. physical, irreversible change   D. chemical, reversible change

30. Which of the following is an example of a physical change?
    A. Milk going sour
    B. Mixing together several ingredients to make cookies
    C. Cooking breakfast
    D. Digestive system breaking down food

31. Based on the periodic table which elements are highly reactive?

   A. Li & Al
   B. Cl & Li

   C. Al & Pb
   D. Ne & Cl

32. Which of the following lists all the elements that are present in a molecule of sulfuric acid, H_2SO_4?
   A. Oxygen & Sulfur
   B. Hydrogen & Sulfate
   C. Hydrogen, Selenium, Oxide
   D. Hydrogen, Sulfur, Oxygen

33. Stanley was running a on a jogging trail near his house. He generally runs at a pace of 4 m/s. While he was running, he realized he was going to have to pass the person that was running in front of him. To do this, Stanley had to run at a pace of 8 m/s for about 2 seconds. What was the acceleration during this time?
   A. .25 m/s
   B. 2 m/s

   C. 4 m/s
   D. 16 m/s

34. In 1687, Isaac Newton published a book discussing the three laws of motion. The third law of motion is known as the law of action-reaction. Which of the following situations is an example of Newton's third law of motion?
   A. A person pushes on the water with a roar while the roar pushes back on the person's hand.
   B. A skater pushes on the skates while the wheels of the skates push on the ground.
   C. A tennis racket pushes on a ball while the ball pushes back on the racket.
   D. A gymnast pushes down on a balance beam with her feet and the balance beam pushes down on the ground.

35. Since the rotational period and revolutionary period of the moon are identical lengths, which of the following statements best applies?
   A. This is why we only see stars at night
   B. This is how the moon creates tides
   C. This is why the moon appears all one color
   D. This is why we see only one side of the moon from earth
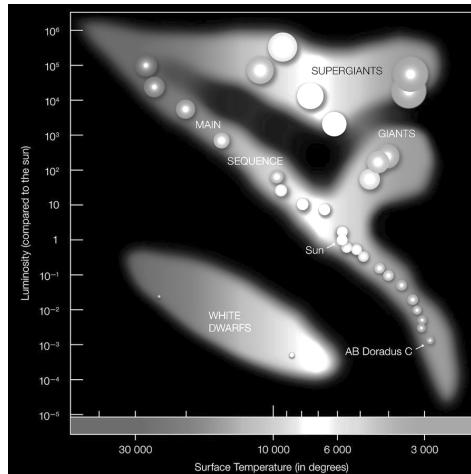
36. A star with a temperature of 15,000 K and a luminosity of .8 is most likely which classification of stars?
   A. Main sequence
   B. Giant
   C. White dwarf
   D. Super giant

37. The theory of plate tectonics does not explain which of the following:
   A. Karst topography
   B. Volcanic activity
   C. Earthquakes
   D. Mountain formation

38. Which of the following crustal features is not formed at convergent boundaries?
   A. Island
   B. Volcano
   C. Hill
   D. Rift Valley

39. On a summer day in July, a person stepped barefoot off a beach towel onto the hot sand and then proceeded to walk to the ocean. Why did the sand seem so much warmer?
   A. The sand has a lower specific heat and heats up rapidly.
   B. The water has a lower specific heat and heats up slowly.
   C. The sand has a higher specific heat and heats up slowly.
   D. The water has a higher specific heat and heats up rapidly.

40. A scientist learns about two currents in an ocean that move in opposite parallel directions to each other. This information would be most likely to help in which of the following scenarios?
A. Building faster boats
B. Preventing tropical storms
C. Predicting storms
D. Decreasing pollution

41. Which of the following statements most accurately describes the competition that occurs between organisms within an ecosystem?
A. Competition between organisms is a result of limited resources.
B. Organisms only compete for the biotic factors in an ecosystem.
C. Competition between organisms is a result of unlimited resources.
D. Organisms only compete for the abiotic factors in an ecosystem.

42. A small amount of liquid is applied between a dog's shoulder blades each month. The liquid is supposed to help prevent insects from bothering the dog. Lately, the liquid does not keep fleas off the dog. What is most likely cause of this change?
A. Giving the dog a bath after applying the liquid makes it where the liquid not able to work correctly.
B. The fleas that survived exposure to the liquid and have produced offspring that are resistant to the liquid.
C. The weather conditions have changed.
D. The liquid has changed the dog's fur over time.

43. Which scientific law are decomposers modeling when they break down organic material and release carbon dioxide into the atmosphere and nitrogen into the soil?
A. Newton's First Law of Inertia
B. Newton's Third Law Action and Reaction
C. Law of Conservation of Mass and Energy
D. Law of Universal Gravitation

44. Students were traveling south with their class from Dallas to San Antonio. Students were told it would take about 4.5 hours to travel the 270 miles. What would the velocity of the vehicle have to be in order to cover that distance in that amount of time?
A. 60 mi/hr^2
B. 60 mi/hr
C. 60 mi/hr^2 south
D. 60 mi/hr south

45. Scientists believe that the universe is expanding because of a phenomenon known as
A. Gravitation waves
B. Red shift
C. Blue shift
D. Gamma radiation

46. The SDS for a chemical says possible effects included irritation to respiratory tract as well as gastrointestinal tract. An individual handling this chemical so most likely –
A. Wear latex gloves
B. Submerge the chemical in distilled water
C. Wear a face mask
D. Have a fire blanket readily available

47. Which sound can be heard from the farthest distance based on the decibel level?

Normal breathing	10 dB
Lawnmower	85 dB
Whisper	30 dB
Washing machine	70 dB

A. Normal breathing
B. Lawnmower
C. Whisper
D. Washing machine

48. Students cut one inch strips of several different paper towels to see the absorbency of each. To create a graph, the students will need to put which variable on the x axis?
A. Brand of paper towel
B. Size of paper towel
C. Temperature of water
D. Time

49. Students were shown a lava lamp. The wax was heated and it rose up in the liquid, and then drifted back down after a period of time. This model most likely represents which of the following concepts?
A. Conduction
B. Convection
C. Electrical transmission
D. Radiation

50. For a lab, students see the following:

In the event of an accident, the students should know the location of which of the following?
A. Fume hood
B. Emergency shut off
C. Fire blanket
D. Safety shower

UNIVERSITY INTERSCHOLASTIC LEAGUE
2023-2024 SCIENCE
FALL/WINTER TEST

ANSWER KEY

1. C	18. C	35. D
2. D	19. A	36. C
3. D	20. B	37. A
4. C	21. B	38. D
5. A	22. C	39. A
6. C	23. A	40. C
7. B	24. C	41. A
8. A	25. B	42. B
9. D	26. A	43. C
10. C	27. D	44. D
11. A	28. B	45. B
12. C	29. C	46. C
13. B	30. B	47. B
14. D	31. B	48. A
15. B	32. D	49. B
16. C	33. B	50. D
17. B	34. C	

SPRING DISTRICT 2023-2024
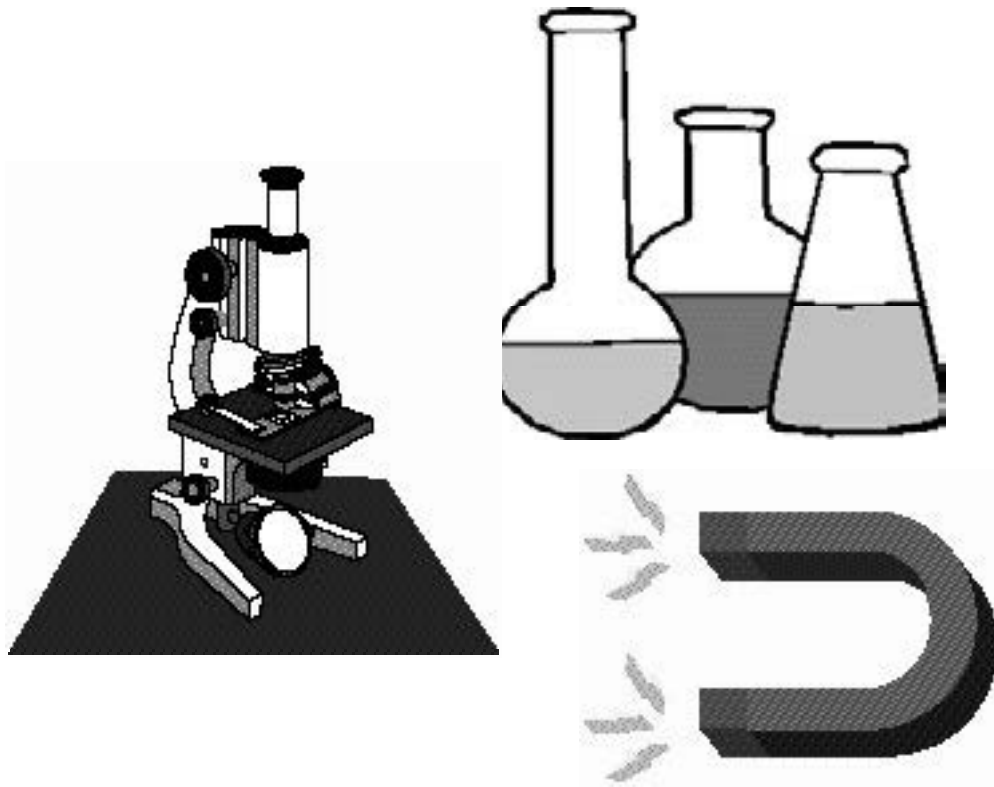
A+ ACADEMICS

University Interscholastic League

Science

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

UNIVERSITY INTERSCHOLASTIC LEAGUE
2023-2024 SCIENCE
SPRING TEST

1. Students collect data on the following samples. Which of the following are most likely elements?

Sample Number	Substance	Observations
1	Na	Has a strong metallic luster. In color, it is very analogous to silver. It is soft at common temperatures that it can be shaped by the pressure of the fingers.
2	H_2	It is a gas with no color and odor and has the lowest density of all gases.
3	N_2O_4	Red-brown liquid with a sharp, unpleasant chemical odor. It also has a low boiling point.
4	Ag	It is a white, soft, lustrous, very ductile, and malleable metal. It is a very good conductor of electricity and heat.
5	NaCl	Crystals or white crystalline powder. Transparent and colorless in crystalline form.

A. Na, H_2, and Ag
B. Na, N_2O_4, and NaCl
C. N_2O_4 and NaCl
D. N_2O_4, Ag, and Na

2. All of the following are examples of an inclined plane except –
A. Mobility ramp
B. Inflatable slide
C. Screw
D. Seesaw

3. A glass of lemonade is sitting on a picnic table outside. The energy from the sun will heat up the glass through which of the following processes?
A. Convection
B. Conduction
C. Radiation

4. Using the graph, what is the average speed of the object during the period shown?

    A. .5 m/s
    B. .75 m/s
    C. 2 m/s
    D. 5000 m/s
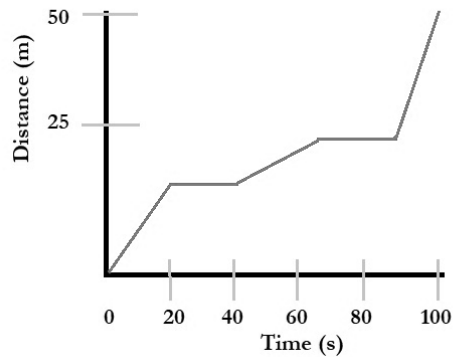
5. Which best shows that thermal energy will move from a hotter area to a cooler area until an equilibrium is reached?
    A. A person sitting directly under a fan feels cooler than someone sitting away from the fan
    B. A refrigerator without power
    C. A pot of water boiling after 10 minutes on a stove
    D. Salt placed on an ice cube to increase its melting

6. When a car is on a road covered with water it can be difficult to control the motion of the car. Which force is most likely responsible for this type of motion?
    A. Balanced   C. Unbalanced
    B. Equal   D. Gravitational

7. The inner core of the earth is a solid metal, while the outer core of the earth is made of molten metal. Which of the following best explains why this occurs?
    A. The temperature of the inner core is higher than the outer core
    B. The temperature of the inner core is lower than the outer core
    C. The pressure of the inner core is lower than the outer core
    D. The pressure of the inner core is higher than the outer core

8. Which celestial body is composed of only rocks and minerals?
    A. Sun   C. Comet
    B. Asteroid   D. Black hole

9. Earth's surface is made up of many different types of rocks. Rocks that were primarily formed by melted rock deep within the earth would be an example of which of the following:
    A. Igneous
    B. Metamorphic
    C. Sedimentary

10. Which of the following is the smallest tectonic plate?
    A. Pacific
    B. North American
    C. Antarctic
    D. Indo-Australian

11. At which position in the path of this falling object does it have the greatest potential energy?

    A. 3
    B. 2
    C. 5
    D. 4
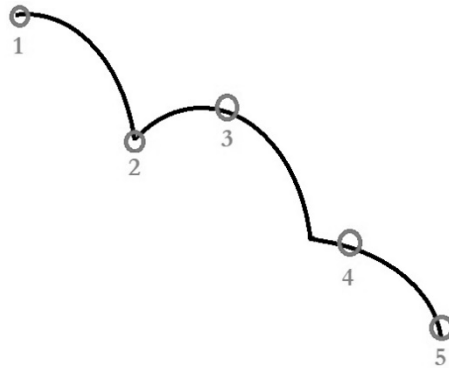
12. Which of the following countries were the leaders in the world for space exploration during the 1960s?
    A. United States and China
    B. Soviet Union and United States
    C. China and Germany
    D. Japan and Soviet Union

13. Which celestial body in our solar system has the greatest gravitational pull?
    A. Sun
    B. Jupiter
    C. Ceres
    D. Earth

14. Identify the locations from the speed time graph where an increase in speed can be observed?

    A. A & B
    B. B & D
    C. A & C
    D. C & D
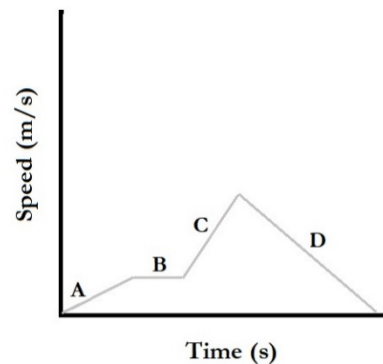
15. Which of the following represents a biotic change?
    A. Cloudy sky during the day keeps temperatures cooler
    B. Flash flooding causes high humidity in a region
    C. Salinity of local pond changes after a thunderstorm
    D. Increase in coyote population will cause a reduction in the deer population

16. In which of these boxes would be best for a student to place a picture of a deer?

    A. 1
    B. 2
    C. 4
    D. 6

17. An 18-wheeler moves forward with 220 N of force as it is traveling down the highway. friction opposed the motion of the 18-wheeler with a force of 30 N. What is the net force?
    A. 30 N
    B. 190 N
    C. 220 N
    D. 6,600 N

18. What always happens when a chemical reaction occurs?
    A. New substances are formed
    B. Light is given off
    C. There are changes in the size and shape of the object
    D. Mass is destroyed

19. Students are completing a lab using a metal slinky. One of the students stretched the slinky too far and accidentally twisted the slinky. This would be an example of which of the following?
    A. Physical change because the change is irreversible
    B. Chemical change because the change is irreversible
    C. Physical change because the change is reversible
    D. Chemical change because the change is reversible

20. Which of the following best relates to both of the statements provided?

    • *This can stimulate the growth of bones*
    • *It can also be counteracted in the circulatory system by structures in the veins*

    A. Friction
    B. Homeostasis
    C. Calcium
    D. Gravity
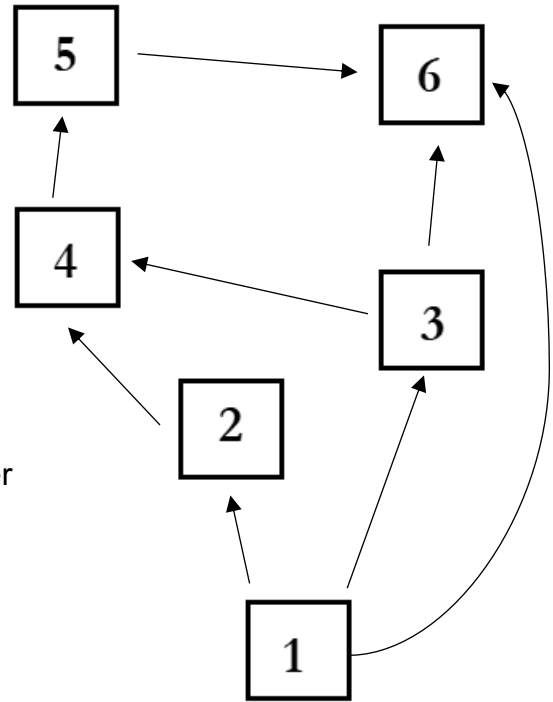
21. Use the dichotomous key to identify the type of leaf pictured.
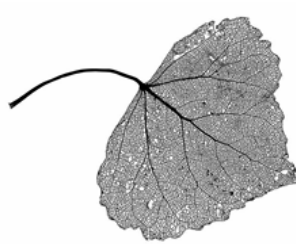
1. Leaves are needlelike or very small and scalelike	Go to 2.
1. Leaves are broad	Go to 5.
2. Leaves are long and needlelike.	Go to 3.
2. Leaves are small and scalelike.	CEDAR
3. Two needles to a bundle	SHORTLEAF
3. Three needles to a bundle	Go to 4.
4. Adult needles are 4-6 inches.	LOBLOLLY
4. Adult needles are 6-12.	LONGLEAF PINE
5. Leaves are broad and heart-shaped.	Go to 6.
5. Leaves are not heart-shaped.	Go to 7.
6. Leaf edge is saw-toothed.	COTTONWOOD
6. Leaf edge is smooth.	REDBUD.
7. Leaves grow oppositely of the branch.	Go to 8.
7. Leaves grow alternately.	Go to 11
8. Leaves are simple and lobed.	Go to 9.
8. Leaves are simple and not lobed.	Go to 10.
9. Leaves are moderately lobed.	RED MAPLE
9. Leaves are deeply lobed (almost to the mid-rib)	SILVER MAPLE

A. Cedar
B. Loblolly
C. Cottonwood
D. Silver Maple

22. Sand for beaches comes from rocks in the area that are weathered down, and the sediment is deposited in the beaches. A beach erodes because the supply of sand to the beach cannot keep up with the loss of sand to the water. If rocks were to stop weathering, how would the beach change?
   A. The beach would gain sediment because sand would still be deposited and not weathered away.
   B. The beach would lose sediment because sand would still erode, and there is no new sediment being deposited.
   C. The beach would stay the same because the beach could not change if it could not be weathered.
   D. The beach would lose sediment because the sand would still weather, moving sediment onto the land.

23. Who was the first woman to orbit Earth?
    A. Sally Ride
    B. Svetlana Savitskaya
    C. Valentina Tereshkova
    D. Kayla Barron

24. This picture was taken during the middle of summer during a drought. Based on this, which of the following statements most likely identifies why the organisms are at the top of the fence posts?
    A. The snails are going to higher ground to reach cooler air.
    B. The snails are going to higher ground to mate.
    C. The snails are going to higher ground to avoid a flash flood.
    D. The snails are going to higher ground to avoid predators.

25. A local gardener wants to increase the sustainability of their garden in their backyard. Which of the following will most likely result in greater sustainability?
    A. Decrease the unique types of plants in the garden.
    B. Add worms to the garden soil.
    C. Have more mature versions of species that are already in the garden.
    D. Grow only one type of plant in the garden.

26. Bears in most areas have either a black or brown coat. A polar bear has a white coat in winter. How does the polar bear's white color help it survive in the artic?
    A. It makes the animal warmer during the summer
    B. It helps the animal blend into its background
    C. It makes the animal appear larger to prey
    D. It helps the animal stay cooler during the winter

27. Which cell organelle has the function of taking in nutrients, breaking them down, and creating energy for the cell?
    A. Mitochondria   C. Endoplasmic reticulum
    B. Ribosome   D. Golgi apparatus

28. A person with an infection may begin to feel hot and run a fever. This response most likely helps the body fight infection by doing which of the following —
    A. Forcing the bacteria to exit the body
    B. Trapping harmful bacteria within the body
    C. Keeping additional bacteria from entering the body
    D. Making it difficult for additional bacteria to grow in the body

29. During asexual reproduction, a single cell becomes two new cells. The genetic material in each of the daughter cells is usually —
    A. Half the number of genes
    B. Completely different from the parent cell
    C. Exact same number of genes
    D. Twice the number of genes

30. Can a tattoo be inherited through sexual reproduction? Why?
    A. Yes, it is an inheritable trait
    B. Yes, it is an acquired trait
    C. No, it is an inheritable trait
    D. No, it is an acquired trait

31. Which element will have similar chemical reactivity to Tellurium (Te), located in group 16 on the periodic table?
    A. Fluorine
    B. Sulfur
    C. Bromine
    D. Neon

32. Which of the following are examples of unbalanced forces?
    A. A girl sitting on a swing
    B. A bucket full of sand
    C. A child jumping rope
    D. A boy floating on the water

33. Which lines best represents a spring tide?
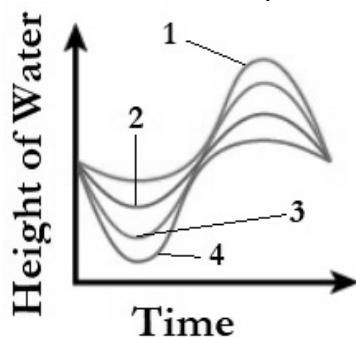
    A. Line 1
    B. Line 2
    C. Line 3
    D. Line 4

34. Looking up at the night sky we see numerous stars that started their life journey many years ago. A star's life cycle is determined by its characteristics. Which statements correctly describe the stars throughout their life cycle?
    A. A star's life cycle begins with a nebula
    B. As a supergiant continues throughout its life cycle, it will become a planetary nebula
    C. A white dwarf is a small-sized star that does not go through a change in its life cycle
    D. Every star's life cycle will end with a black hole or neutron star

35. This is a topographic map of a canyon. Which point is the steepest?
    A. A
    B. B
    C. C
    D. D
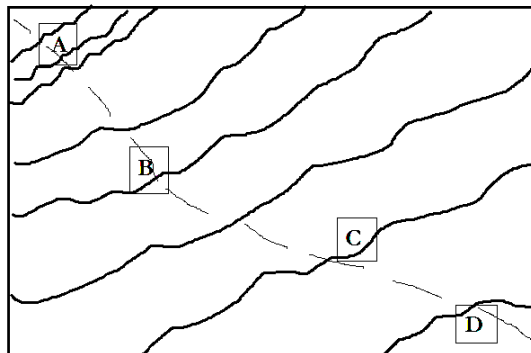
36. On a normal summer day at the beach, the temperature over the land is warmer than the temperature over the water. The warmer air will rise and the cooler air moves over the land, producing sea breezes. This most likely shows that —
    A. Soil warms up more slowly than water
    B. Water has a higher specific heat than land
    C. The air above the land becomes cool and rises
    D. The land has a higher specific heat than water

37. Similar to a water lily, a watershield has a unique set of traits to live in an aquatic environment. To survive on land, the watershield would need to develop an adaptation to perform which of the following functions?
    A. Structures to obtain radiant energy
    B. Structures to obtain nutrients
    C. Produce flowers
    D. Structures to provide support

38. A scientist mixes two solutions, planning to produce methane. Which of the following is the BEST evidence that a chemical reaction is producing methane?
    A. Change in color
    B. Formation of a precipitate
    C. Change in temperature
    D. Formation of bubbles

39. If an artificial reef is built, what shape and direction would need to be designed to allow the most amount of water to pass by the reef as the tide changes?

A.

C.

B.

D.
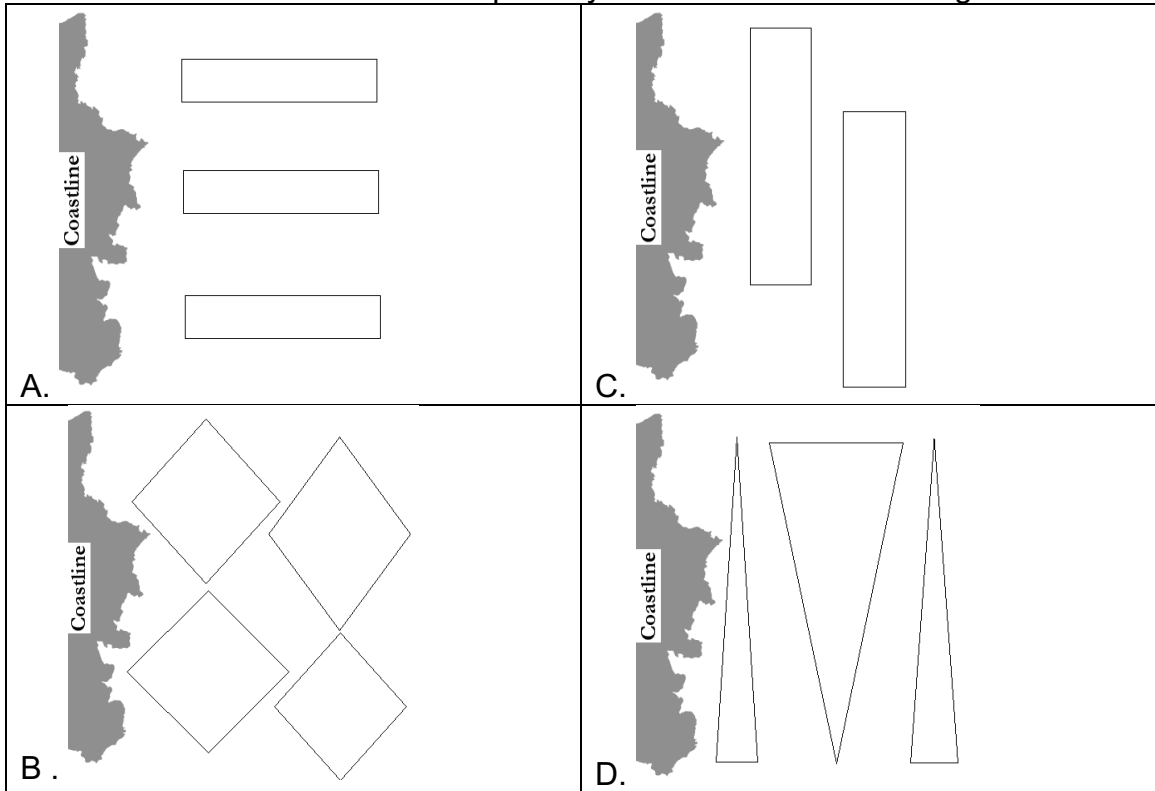
40. A runner is four miles east of another rummer, who is four miles east of a school. Where is the first runner with respect to the school?
   A. 4 miles east of the school
   B. At the school
   C. 8 miles east of the school
   D. 4 miles west of the school

41. Daily weather of an area is largely impacted by the type of air that is moving in. If the air is moving in off the ocean, the air will normally carry a larger amount of moisture. As compared to an air mass that is moving over a continent, would be more likely to be dry.
   Which type of air mass would most likely generate a warm, wet environment?
   A. Continental Polar Air Pressure
   B. Maritime Polar Air Pressure
   C. Continental Tropical Air Pressure
   D. Maritime Tropical Air Pressure

42. Which is most likely to cause a decrease in a predator population?
    A. Decrease in prey population
    B. Reduction in competition
    C. More autotrophs
    D. Population size remaining constant

43. Many galaxies have no disks, no spiral arms, and almost no dust or gas. These galaxies can range from small dwarfs to huge giants. Which classification best describes this?
    A. Spiral   C. Barred
    B. Elliptical   D. Irregular

44. Based on the periodic table, which of the following element most readily accepts electrons?
    A. Fluorine
    B. Nitrogen
    C. Aluminum
    D. Helium

45. Which best describes the scenario?

> *A rocket launching off headed northwest at 10,000 km/hr.*

    A. Example of speed
    B. Example of acceleration
    C. Example of speed and acceleration
    D. Example of velocity and acceleration

46. A quadrat, is used by scientists to observe and collect data, as shown. The length of one of the smaller cells would most likely be –
    A. 20 cm
    B. 25 cm
    C. 20 mm
    D. 25 mm

47. A student experiments to measure the acceleration of a falling marble, which should be 9.8 m/s^2. The student collects an experimental value of 11.6 m/s^2. The most likely reason for this variation is due to:
    A. Air resistance
    B. Human error
    C. Fluctuations in gravity
    D. Mass of the object

48. A student took a glass of lemonade filled with ice outside on a hot summer day. Shortly after the student went back inside for more ice to refill the glass since it had already melted. Which sketch best represents the change of temperature occurring?

A.

B.

C.

D.
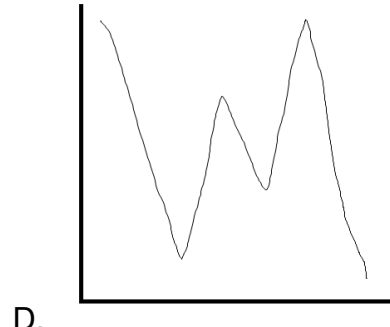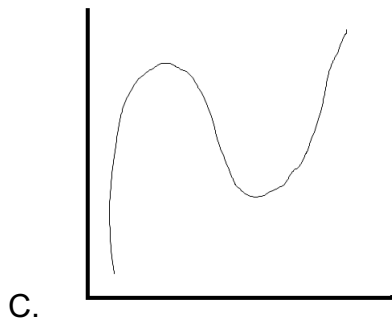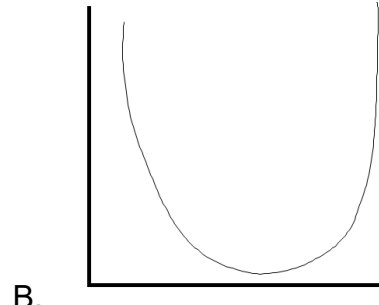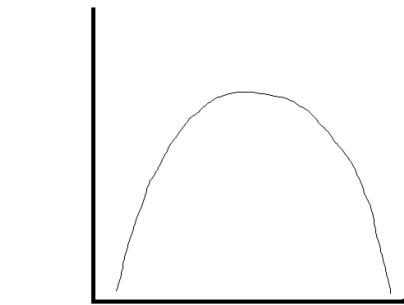
49. Which of the following is not equal to 1000 mL?
    A. 1 L
    B. 100 cL
    C. 1 dm^3
    D. 1 cm^3

50. Suppose you are on a scale as you are riding up to the top of a building in an elevator. What will be true about the reading on the scale as you travel upward?
    A. The scale's reading will remain constant
    B. The scale's reading will increase
    C. The scale's reading will decrease
    D. The mass reading will increase

UNIVERSITY INTERSCHOLASTIC LEAGUE
2023-2024 SCIENCE
SPRING TEST

ANSWER KEY

1. A	18. A	35. A
2. D	19. C	36. B
3. C	20. D	37. D
4. A	21. C	38. D
5. C	22. B	39. A
6. C	23. C	40. C
7. D	24. D	41. D
8. B	25. B	42. A
9. A	26. B	43. B
10. D	27. A	44. A
11. A	28. D	45. D
12. B	29. C	46. A
13. A	30. D	47. B
14. C	31. B	48. C
15. D	32. C	49. D
16. B	33. C	50. B
17. B	34. A	

University Interscholastic League
A+ Social Studies Contest • Answer Sheet

Write your contestant number in the upper right corner, and circle your grade below.
Circle Grade Level: 5   6   7   8

1.	A	B	C	D		21.	A	B	C	D
2.	A	B	C	D		22.	A	B	C	D
3.	A	B	C	D		23.	A	B	C	D
4.	A	B	C	D		24.	A	B	C	D
5.	A	B	C	D		25.	A	B	C	D
6.	A	B	C	D		26.	A	B	C	D
7.	A	B	C	D		27.	A	B	C	D
8.	A	B	C	D		28.	A	B	C	D
9.	A	B	C	D		29.	A	B	C	D
10.	A	B	C	D		30.	A	B	C	D
11.	A	B	C	D		31.	A	B	C	D
12.	A	B	C	D		32.	A	B	C	D
13.	A	B	C	D		33.	A	B	C	D
14.	A	B	C	D		34.	A	B	C	D
15.	A	B	C	D		35.	A	B	C	D
16.	A	B	C	D		36.	A	B	C	D
17.	A	B	C	D		37.	A	B	C	D
18.	A	B	C	D		38.	A	B	C	D
19.	A	B	C	D		39.	A	B	C	D
20.	A	B	C	D		40.	A	B	C	D

University Interscholastic League
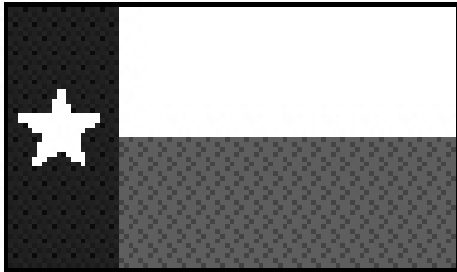
Social Studies
grades 5 & 6

DO NOT OPEN TEST
UNTIL TOLD TO DO SO

UNIVERSITY INTERSCHOLASTIC LEAGUE
2023-24 A+ SOCIAL STUDIES
INVITATIONAL TEST – GRADES 5 & 6

1. Who used these reasons as an explanation as to why the colonies must declare their independence from Britain?
   - People are born with certain "unalienable rights"
   - If a government abuses these rights, people should be free to create a new government
   - Vow to defend their new nation
   a. Jefferson Davis
   b. Thomas Jefferson
   c. Stephen F. Austin
   d. Daniel Webster

2. On June 7, 1776 _____ of Virginia introduced a key resolution to Congress that called the colonies "free and independent states" and declared that "all political connection between them and the state of Great Britain is . . . totally dissolved."
   a. William Dawes
   b. Edward Braddock
   c. Richard Henry Lee
   d. Johnathan Edwards

3. How many grievances by the British King and others did the Declaration of Independence list?
   a. 25
   b. 20
   c. 36
   d. 27

4. _____ was rung to announce the first reading of the Declaration of Independence, in Philadelphia on July 8, 1776.
   a. Liberty Bell
   b. Big Ben
   c. Great Bell of Dhammazedi
   d. Tsar Bell

5. How many states had to ratify the Bill of Rights for them to take effect?
   a. One state
   b. ¾ of the states
   c. All of the states
   d. 2/3 of the states

6. When did the Bill of Rights become part of the Constitution?
   a. 1776
   b. 1863
   c. 1845
   d. 1791

7. In which 1803 case did the Supreme Court rule that it had the power to abolish laws by declaring them unconstitutional?
   a. Marbury v. Madison
   b. Dred Scott v. Sandford
   c. Plessy v. Ferguson
   d. McCulloch v. Maryland

8. What effect did these weaknesses have on the ability of the national government to function?

Weaknesses of the Articles of Confederation

- Inability to collect taxes
- Confusion with money from state to state
- Inflation
- Inability to trade with other countries
- No executive or judicial branches

a. Other countries were eager to make alliances with the new nation
b. Made trading with other countries easier
c. Weak at home and powerless in dealings with other countries
d. Powerful militarily

9. Who became the leader of the 1780s movement that demanded lower taxes and the closing of courts that punished debtors?
a. Nathaniel Bacon
b. Oliver Hazard Perry
c. George Rogers Clark
d. Daniel Shays

10. Why can the Northwest Ordinance be considered a successful action by Congress under the Articles of Confederation?
a. Became the first representative assembly in the American colonies
b. Policy under which the government backs every dollar with a certain amount of gold
c. It provided a workable plan for converting new territories into states that became full partners in the nation
d. A movement aimed at improving the lives of the poor

"The eyes of the United States are turned upon this assembly. . . God grant that we may be able to satisfy them by establishing a wise and just government."

11. Who is credited with this quote?
a. George Mason
b. William Hooper
c. John Morton
d. Benjamin Harrison

12. What was the Three-Fifths Compromise?
a. Plan to have two houses of Congress
b. The plan for how enslaved people were to be counted for purposes of taxation and population
c. Policy of U.S. opposition to any European interference in the Western Hemisphere
d. How the transcontinental railroad was to be funded

13. Framers were concerned that too much power might fall into the hands of a single group. To avoid this problem, what division of duties system did the Framers turn?

Article 1	Article 2	Article 3
Legislative Branch	Executive Branch	Judicial Branch
Congress makes the laws	President enforces the laws	Supreme court interprets the law

    a. Separation of powers   c. Federalism
    b. Checks and balances   d. Republicanism

14. How can a person under the age of 18 be a good citizen?
    a. Serve on a jury
    b. Vote
    c. Writing to your elected officials about issues that concern you
    d. Serve in the military

15. Who is this national political leader?
    a. Dr. Janet Yellen   c. Gina Raimondo
    b. Deb Haaland   d. Kamala Harris

16. _____ is the U. S. Attorney General.
    a. Lloyd Austin   c. Antony Blinken
    b. Merrick Garland   d. Tom Vilsack

17. What document asked the King to restore harmony between Britain and the colonies?
    a. Magna Carta
    b. Mayflower Compact
    c. Albany Plan of Union
    d. Olive Branch Petition

"He is at this time transporting large Armies of foreign Mercenaries to compleat the works of death, desolation and tyranny" Declaration of Independence

18. Who are Mercenaries?
    a. Professional soldier hired to fight for a foreign country
    b. Country that agrees to help another country achieve a common goal
    c. Supporters of the Constitution
    d. A person who buys huge areas of land for a low price and then sells off small sections at high prices

19. How were the concerns of the colonies answered by the King of England?
    a. Promised to do better
    b. Repeated petitions have been answered only by repeated injury
    c. Sent emissaries to assist colonists
    d. Contributed large amounts of money to build transportation systems

20. What is the Preamble to the United States Constitution?
    a. First formal proposal to unite the American colonies
    b. Compromise that might have prevented secession
    c. A brief introductory statement of the Constitution's fundamental purposes and guiding principles
    d. A written statement issued by a grand jury charging a person with a crime

21. Who has used the Preamble as reliable evidence of the Founding Father's intentions regarding the Constitution's meaning and what they hoped it would achieve?
    a. Business leaders
    b. Clergy
    c. Supreme Court
    d. Soldiers

22. What is an example of how this nation has been able to "provide for the common defense"?
    a. U.S. coins, paper money
    b. Army
    c. Jury system
    d. Federal Election Commission

23. Which Amendment to the Constitution guarantees people this right?
    a. Two
    b. Six
    c. Four
    d. Nine

24. Probable cause must be present for a _____ to be issued.
    a. Armistice
    b. War bond
    c. Patent
    d. Warrant

25. How did Taiwan prepare its people for democracy?
    a. Began by electing village, county and city governments
    b. Appointed national leaders
    c. Allowed leaders to ascend to office through heredity
    d. Church gave approval to leaders

26. Where do our laws, family structure, political opinions and courts have their roots?
    a. China
    b. Ancient Greece
    c. Ancient Japan
    d. Egypt

27. What philosopher looked at the nature of man and government and believed that government should serve them and protect them and their freedom?
    a. Karl Marx
    b. Plato
    c. Jean Jacques Rosseau
    d. Rene Descartes

28. How are rights different from responsibilities?
    a. Cost in money
    b. Age of participants
    c. Technology needed
    d. Rights are protections guaranteed to you. Responsibilities are duties you owe your fellow citizens

29. What is a reason for the success of the U.S. Constitution?
    a. Weak central government
    b. Lack of a Bill of Rights
    c. It can be changed, when necessary, to meet the changing needs of the country's people
    d. No judicial branch

30. Where were these leaders instrumental in bringing democracy?

    • Indira Gandhi
    • Mohandas Gandhi
    • Jawaharial Nehru

    a. India   c. Russia
    b. Spain   d. Nepal

31. What was once called the Hidden Holy Land because of its isolation? Most of its people remain deeply loyal to Buddhism.
    a. China   c. Germany
    b. Bhutan   d. Chile

32. Who started most of the famous universities of Europe?
    a. Large corporations   c. Individuals
    b. State governments   d. Christian scholars

33. Myanmar exports precious gems such as rubies, sapphires and jade and provided about 75 percent of the world's teakwood. Myanmar's valuable forests are decreasing because of deforestation. What is deforestation?
    a. Method in which the land is left unplanted every few years so that it can store moisture
    b. Process of moving water and wind across the earth's surface, leaving the land less fertile than before
    c. Strips of land cut out of a hillside like stair steps so the land can hold water and be used for farming
    d. Widespread cutting of trees

34. Why is Luxembourg so attractive to foreign countries?
    a. Location and people are multilingual
    b. Precious gems
    c. Climate
    d. Tourism

35. The executive branch of the Texas government has more than _____ agencies to help make sure certain laws are followed.
   a. 100
   b. 150
   c. 200
   d. 250

36. Where is the center of state government in Texas?
   a. Houston
   b. Austin
   c. Dallas
   d. Washington-on-the-Brazos

37. Who was the first woman elected to statewide office in Texas?
   a. Annie Webb Blanton
   b. Mae Jemison
   c. Kay Granger
   d. Selena Perez

38. Which title finishes this list?

?

First Lady of Texas from 1994-2000
Founded the Texas Book Festival
First Lady of the United States 2001-2009

   a. Lady Bird Johnson
   b. Laura Bush
   c. Elisabet Ney
   d. Sheila Jackson Lee

39. What office does this Texas political official hold?
   a. Governor
   b. Senator
   c. Lieutenant Governor
   d. Commissioner of Agriculture

40. Who was appointed to serve Texas as its current Secretary of State?
   a. Kay Bailey Hutchison
   b. Lina Hidalgo
   c. Heidi Cruz
   d. Jane Nelson

UNIVERSITY INTERSCHOLASTIC LEAGUE
2023-24 A+ SOCIAL STUDIES
INVITATIONAL TEST—GRADES 5 & 6

Answer Key

1. B		21. C	
2. C		22. B	
3. D		23. A	
4. A		24. D	
5. B		25. A	
6. D		26. B	
7. A		27. C	
8. C		28. D	
9. D		29. C	
10. C		30. A	
11. A		31. B	
12. B		32. D	
13. A		33. D	
14. C		34. A	
15. D		35. C	
16. B		36. B	
17. D		37. A	
18. A		38. B	
19. B		39. C	
20. C		40. D	

University Interscholastic League

Social Studies
grades 5 & 6

DO NOT OPEN TEST
UNTIL TOLD TO DO SO

UNIVERSITY INTERSCHOLASTIC LEAGUE
2023-24 A+ SOCIAL STUDIES
FALL/WINTER DISTRICT TEST – GRADES 5 & 6

1. What document contains the following parts?

<u>?</u>

Preamble
The Right of the People to Control Their Government
Tyrannical Acts of the British King
Efforts of the Colonies to Avoid Separation
The Colonies Are Declared Free and Independent

a. Albany Plan of Union
b. Declaration of Independence
c. Doctrine of Nullification
d. Great Compromise

2. Which English philosopher expressed the belief that a government's power comes from the consent of the governed and is the foundation of modern democracy?
   a. Socrates
   b. John Stuart Mill
   c. Immanuel Kant
   d. John Locke

<u>"A government of our own is our natural right"</u>

3. Who published these words in his pamphlet, *Common Sense,* convincing many Americans that it was time to declare independence?
   a. John Jay
   b. Oliver Wendell Holmes
   c. Thomas Paine
   d. George Whitehead

4. Why did the addition of a Bill of Rights help with the ratification of the Constitution?
   a. It guaranteed freedoms by placing specific limits on government
   b. Listed the functions of each branch of government
   c. Placed age requirements on office holders
   d. Listed specific amounts of compensation for each office

5. According to the U S Constitution, what two bodies were to make up Congress?
   a. Supreme Court, Appellate Court
   b. State, Local
   c. Entrepaneurs, workers
   d. House of Representatives, Senate

Commander in Chief
Chief executive
Chief diplomat
Legislative leader

6. Which branch of the national government is granted these powers by the Constitution?
   a. Executive
   b. Judicial
   c. Legislative
   d. Church

7. What kinds of cases can begin in the Supreme Court?
   a. Cases involving the Constitution, national laws, treaties and state conflicts
   b. Civil cases
   c. Criminal cases
   d. Probate cases

8. Who argued for a newer, stronger form of government than was formed by the Articles of Confederation?
   a. Patriots
   b. Homesteaders
   c. Nationalists
   d. Loyalists

9. The main governing body under the Articles of Confederation was _____.
   a. Congress
   b. Supreme Court
   c. President
   d. Church

10. In what city was a meeting to be held for "the sole and express purpose of revising the Articles of Confederation"?
    a. New York
    b. Savannah
    c. New Orleans
    d. Philadelphia

11. Who wrote articles, that were published in *The Federalist*, to persuade others to ratify the Constitution?
    a. William Clark
    b. James Madison
    c. Henry Clay
    d. Francis Scott Key

12. _____ presented his own draft of the Constitution to the members of the Continental Congress.
    a. Pierce Butler
    b. William Read
    c. Charles Pinckney
    d. James Wilson

13. Who was unanimously elected to be the leader of the Constitutional Convention?
    a. Robert Morris
    b. William Samuel Johnson
    c. George Washington
    d. Jacob Broom
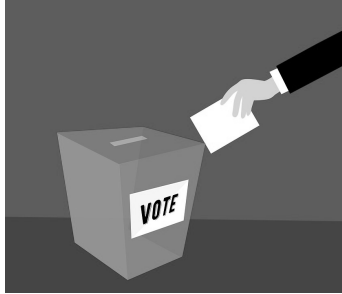
14. The Framers wanted the people to have a voice in government. _____ gives people the right to vote for their political representatives.
    a. Federalism
    b. Limited government
    c. Individual rights
    d. Republicanism

15. What is an example of a personal responsibility?
    a. Serving on juries
    b. Helping your family
    c. Paying taxes
    d. Defending your country

16. Who is this national political leader?
    a. Antony Blinken
    b. Denis McDonough
    c. Merrick Garland
    d. Avril Haines

"We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights," – Declaration of Independence

17. What is NOT an unalienable right?
    a. Life
    b. Treason
    c. Liberty
    d. Pursuit of happiness

18. How did the King of England endeavor to prevent population of these States?
    a. Obstructed the Laws for Naturalization of Foreigners
    b. Encouraged new trade laws to be passed
    c. Established an educational system
    d. Surveyed sections of land free of charge

19. What final remedy did the colonists seek in the Declaration of Independence?
    a. Colonists should pay Great Britain for their costs in establishing the new country
    b. Military alliance with Great Britain
    c. That the political connection between the colonists and Great Britain ought to be totally dissolved
    d. Colonists encouraged trade with Great Britain

20. The Preamble to the Constitution was primarily written by?
    a. Ralph Waldo Emerson
    b. Thomas Stone
    c. Alexander Hamilton
    d. Gouverneur Morris

21. When was the Preamble to the Constitution written?
    a. 1863
    b. 1777
    c. 1917
    d. 1787

22. What is an example of how this nation is fulfilling its goal to "promote the general welfare" as set forth in the Preamble to the Constitution?
    a. Federal Elections Commission
    b. Federal marshals
    c. Safety in the workplace
    d. U.S. coins, paper money
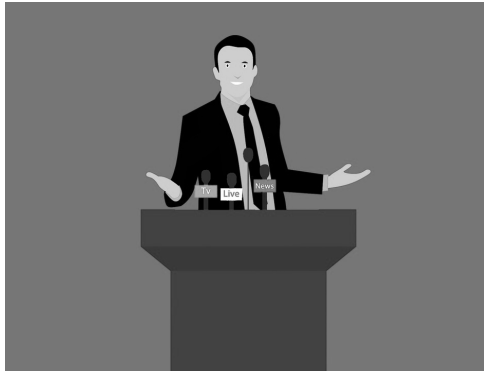
23. Which Amendment guarantees this right to the people?
    a. One
    b. Five
    c. Three
    d. Nine

24. Who helped draft the Bill of Rights?
    a. Andrew Johnson
    b. James Madison
    c. Robert Elliott
    d. Samuel Gompers

25. How was Taiwan ruled before it became a democracy?
    a. One- party system
    b. Monarchy
    c. By aristocracy
    d. Militarism

26. _____ is the home of the world's first democratic constitution.
    a. Persia
    b. Beijing
    c. Constantinople
    d. Athens

27. What were bronze tablets on which laws regarding wills, courts and property were recorded that applied to all citizens of Rome?
    a. Marshall Plan
    b. Declaration of First Nations
    c. Twelve Tables
    d. Dayton Peace Accords

28. What are benefits and protections guaranteed to you by law?
    a. Responsibilities
    b. Rights
    c. Conflict
    d. Pardons

29. _____ is a major responsibility of democratic citizenship.
    a. Right to own property
    b. Right to assemble
    c. Freedom of speech
    d. Voting

30. What was a result of the Mexican government's policy of borrowing from foreign banks?
    a. More income to spend on its citizens
    b. Better cost on products imported
    c. Mexico must use tax money to repay loans and cannot spend money on its people
    d. Better interest rates

31. Where are all citizens over the age of 18 required to vote in all local, state and national elections or risk being fined up to 50 dollars?
    a. Brazil
    b. Australia
    c. Canada
    d. Argentina

32. Who, the most famous Albanian in recent times, served the poor in Calcutta, India?
    a. Mother Teresa
    b. Vicente Fox
    c. Pope John Paul II
    d. Simon Bolivar

33. Taiwan has one of the world's most prosperous economies. Its wealth comes largely from high-technology industries, manufacturing and trade with other countries. What are high-technology industries?
    a. Home- or village-based industry in which family members supply their own equipment to make goods
    b. Produce computers and other kinds of electronic equipment
    c. Industry that produces goods such as clothing, shoes, furniture and household products
    d. Industry that provides services like banking, education and tourism to people rather than producing goods

34. Which nation has the lowest infant death rate in the world and its literacy rate is almost 100 percent?
    a. Afghanistan
    b. Chile
    c. Congo
    d. Japan

35. The Texas House of Representatives has _____ members.
    a. 300
    b. 252
    c. 150
    d. 30

36. What is one of the highest courts in Texas?
    a. Court of Criminal Appeals
    b. District Courts
    c. Education Agency
    d. County Court of Law

37. Who represented Texas in the U.S. House of Representatives from 1912 to 1961?
    a. Francis Lubbock
    b. John Cornyn
    c. Richard King
    d. Sam Rayburn

White House Chief of Staff
Secretary of Treasury
Secretary of State
Under Secretary of Commerce

38. Which Texan served the national government in these positions?
    a. James A. Baker III
    b. John Tower
    c. John Nance Garner
    d. James Talarico

39. What office does this political official hold?
    a. Comptroller of Public Accounts
    b. Commissioner of Agriculture
    c. Secretary of State
    d. Governor

40. _____ serves as Commissioner of the General Land Office in Texas.
    a. Cecile Richards
    b. Jody Conradt
    c. Dawn Buckingham
    d. Wendy Davis

UNIVERSITY INTERSCHOLASTIC LEAGUE
2023-24 A+ SOCIAL STUDIES
FALL/WINTER DISTRICT TEST —GRADES 5 & 6

Answer Key

1.	B	21.	D
2.	D	22.	C
3.	C	23.	A
4.	A	24.	B
5.	D	25.	A
6.	A	26.	D
7.	A	27.	C
8.	C	28.	B
9.	A	29.	D
10.	D	30.	C
11.	B	31.	B
12.	C	32.	A
13.	C	33.	B
14.	D	34.	D
15.	B	35.	C
16.	A	36.	A
17.	B	37.	D
18.	A	38.	A
19.	C	39.	B
20.	D	40.	C

SPRING DISTRICT 2023-2024
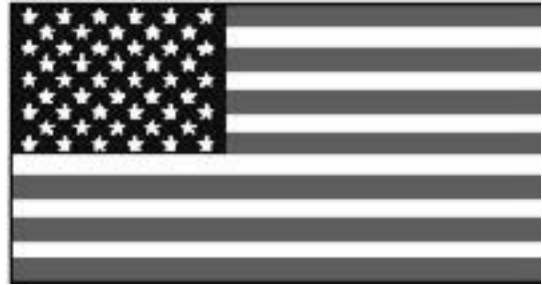
A+ ACADEMICS

University Interscholastic League

Social Studies
grades 5 & 6

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

UNIVERSITY INTERSCHOLASTIC LEAGUE
2023-24 A+ SOCIAL STUDIES
SPRING DISTRICT TEST – GRADES 5 & 6

1. Why was Thomas Jefferson chosen to write the Declaration of Independence?
   a. Chairman of the largest corporation in the United States
   b. Leader of the church in the United States
   c. World famous novelist
   d. Had a reputation of being quiet, very intelligent and an excellent writer

2. The Declaration of Independence was signed by _____ representatives from the 13 original colonies.
   a. 5   c. 13
   b. 56   d. 39

   "There must be no pulling different ways. We must all hang together."

3. Who cautioned his fellow signers with this quote after signing the Declaration of Independence?
   a. William Hooper   c. John Hancock
   b. Richard Stockton   d. Elbridge Gerry

4. Why did some states think that it was necessary to add a bill of rights to the U. S. Constitution?
   a. Because otherwise a tyrannical government might abuse individual liberties
   b. Qualifications for office holders were needed
   c. Duties needed to be assigned to the various branches
   d. Funds procured for the new government

5. Which state cast the deciding vote to ratify the U. S. Constitution?
   a. Delaware   c. Massachusetts
   b. New Hampshire   d. Oklahoma

   - **Taxation**
   - **Credit**
   - **Commerce**
   - **Naturalization**
   - **Post office**

6. Which branch of the national government is granted these powers by the Constitution?
   a. Executive   c. Legislative
   b. Judicial   d. Church

7. The_____ established the Supreme Court with a chief justice and five associate justices and other lower federal courts.
    a. Civil Rights Act
    b. Homestead Act
    c. Federal Reserve Act
    d. Judiciary Act of 1789

8. What conclusion did nationalists draw about the Articles of Confederation?
    a. Articles were making the nation weak and a stronger government needed to be formed
    b. Articles made the nation stronger militarily
    c. Enabled the country to grow economically through trade
    d. Made the country one of the strongest in the world

9. Why did Shay's Rebellion frighten Americans?
    a. Clash between Texas settlers and the Mexican government
    b. A revolt against powerful colonial authority in Jamestown and a group of landless frontier settlers
    c. The rebellion showed that some citizens were not going to put up with new policies
    d. Protest erupted against the government's tax on whiskey

10. What event led to the Northwest Ordinance of 1787?
    a. Large numbers of people had moved to California because gold had been discovered
    b. The economy was in severe decline
    c. Treaty with Spain that allowed Americans to use the Mississippi River and to store goods in New Orleans
    d. The nation had received land from Great Britain in the Treaty of Paris

"What stronger evidence can be given of the want of energy in our government than these disorders?. . .Thirteen [states] pulling against each other and all tugging at the . . . head [central government] will soon bring ruin on the whole."

11. Who voiced this concern about the Articles of Confederation influencing Congress to revise them?
    a. George Washington
    b. Oliver Hazard Perry
    c. Nathaniel Bacon
    d. George Rogers Clark

• **The elimination of religious testing as a qualification to office**
• **The power of impeachment being granted only to the House**
• **The establishment of a single chief executive, who will be called President**
• **The power of raising an army and navy being granted to Congress**

12. _____ contributed these clauses to the U. S. Constitution.
    a. John Moore
    b. Charles Pinckney
    c. Henry Laurens
    d. James Whipple
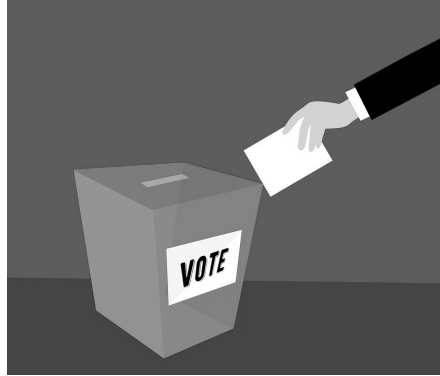
13. The U. S. Constitution rests on the idea of _____-a government in which the people rule.
    a. Popular sovereignty   c. Federalism
    b. Republicanism   d. Checks and balances

14. After turning 18, what is one of the most important civic responsibilities?
    a. Receive an education   c. Take responsibility for one's behavior
    b. Voting   d. Help one's family

15. Who is this national political leader?
    a. Michael Regan   c. Jeff Zients
    b. Denis McDonough   d. Lloyd Austin

16. _____ is the Secretary of Energy.
    a. Isabel Guzman   c. Jennifer Granholm
    b. Linda Thomas-Greenfield d. Alejandro Mayorkas

17. Who was the King of England during the early years of the colonies?
    a. Charles I   c. John IV
    b. William II   d. George III

"He has made Judges dependent on his Will alone, for the tenure of their offices, and the amount and payment of their salaries" **– Declaration of Independence**

18. What is tenure?
    a. A variety of people
    b. The right to hold or possess something
    c. Document giving an inventor the exclusive right to make or sell his or her invention for specific number of years
    d. A statement of beliefs

?

Thomas Jefferson   John Adams   Roger Sherman
Ben Franklin   Robert Livingston

19. Which title finishes this list of individuals?
    a. Committee that wrote the Declaration of Independence
    b. Generals in the Colonial Army
    c. Speakers of the House of Representatives
    d. Leaders of the Industrial Revolution

20. What is the brief introductory statement to the U.S. Constitution?
    a. Amendment   c. Preamble
    b. Fourteen Points   d. Rebuttal

21. What is an example of how the United States government has been able to fulfill its goal of to "Establish justice" as set forth in the Constitution?
    a. U. S. coins   c. Interstate road network
    b. Court system   d. Federal Election Commission

22. Why did the authors of the Constitution feel that the goal to "insure domestic tranquility" needed to be included in the document?
    a. Establish a national religion
    b. To give the President unchecked authority
    c. Keep peace within the country
    d. Create a nobility class

23. What was passed in 1966 that protects a suspect from giving a forced confession?
    a. Miranda rights   c. Income tax
    b. Greenbacks   d. Gold standard

24. Which Amendment to the U.S. Constitution states "the accused shall enjoy the right to a speedy and public trial"?
    a. Two   c. Four
    b. Seven   d. Six

25. Why has Greece been called the "cradle of democracy"?
    a. Location of many large corporations
    b. Home of the Catholic Church leadership
    c. We trace the beginnings of our political system to this place
    d. Great center of learning

26. How was the growth of democracy in Britain different from that in France?
    a. More costly in terms of dollars in Britain
    b. In Britain the change occurred more peacefully and over a longer period of time
    c. France had more allies to help in the process
    d. Brought about extreme violence in the nation

27. What is an example of a right in the United States?
    a. Freedom of peaceful assembly   c. Serve in the military
    b. Volunteer for a cause   d. Pay taxes

28. Who was instrumental in bringing democracy to India?
    a. Kofi Annan   c. Friedrich Engels
    b. Mao Zedong   d. Mohandas Gandhi

29. Which nation by law requires people from 18 to 70 to vote?
    a. Brazil   c. United States
    b. Canada   d. Mexico

30. Latvia's economy is based on _____ .
    a. Hydroelectric power and mining
    b. Petroleum
    c. Fishing, shipbuilding, dairy farming and beef production
    d. Salt

31. What is the oldest of the three world religions?
    a. Christianity   c. Islam
    b. Judaism   d. Hinduism

32. Almost half of Syria's people live in rural areas. A few are Bedouins. Who are Bedouins?
    a. Young worker who learned a trade or skill from a master teacher
    b. Person who travels to another country to view its natural wonders
    c. Supply of people who can produce goods
    d. Nomadic desert people who follow a traditional way of life

33. Which religion, that began in Japan many centuries ago, teaches respect for nature, love of simple things and concern for cleanliness and good manners?
   a. Buddhism
   b. Shinto
   c. Zen
   d. Constitutionalism

34. Who, after having enjoyed 700 years of a stable democratic government, because of its location in the Alps has practiced neutrality?
   a. Switzerland
   b. Russia
   c. Italy
   d. Argentina

Texas State Government

Legislative	Executive	Judicial
Senate, House of Representatives	Governor	Supreme Court

35. Why did the Texas Constitution call for the three branches of government to work separately?
   a. Provides checks and balances on the branches
   b. Guarantees personal liberties to the citizens
   c. Balances power among the branches
   d. Gives citizens power over the government

36. _____ is the center of state government in Texas.
   a. Houston
   b. San Antonio
   c. Dallas
   d. Austin

37. Who served as the Governor of Texas between 1991-1995?
   a. Ann Richards
   b. Jane McManus Cazneau
   c. Susanna Wilkerson Dickinson
   d. Claudia Alta Taylor

38. Which notable Texan was the first Hispanic to be elected to a seat in the U.S. Congress?
   a. Roland Gutierrez
   b. Joaquin Castro
   c. Henry B. Gonzales
   d. Henry Cisneros

39. What office does this official hold in the Texas government?
    a. Commissioner of Agriculture
    b. Secretary of State
    c. Member of Railroad Commission
    d. Lieutenant Governor

40. _____ serves Texas as the Comptroller of Public Accounts.
    a. James Wright
    b. Bob Hall
    c. Scott Walker
    d. Glenn Hegar

UNIVERSITY INTERSCHOLASTIC LEAGUE
2023-24 A+ SOCIAL STUDIES
SPRING DISTRICT TEST—GRADES 5 & 6

Answer Key

1. D		21. B
2. B		22. C
3. C		23. A
4. A		24. D
5. B		25. C
6. C		26. B
7. D		27. A
8. A		28. D
9. C		29. A
10. D		30. C
11. A		31. B
12. B		32. D
13. A		33. B
14. B		34. A
15. D		35. C
16. C		36. D
17. D		37. A
18. B		38. C
19. A		39. B
20. C		40. D

UIL
Storytelling
EVALUATION SHEET

INSTRUCTIONS

Please review the instructions for evaluating the performances of the storytelling contestants. The following criteria are of equal importance to evaluating contestants. Terminology used is only intended to help the judge identify criteria for determining a winner. Please make your comments using language understandable to the contestant. Students and instructors appreciate constructive narrative comments. Please do not confer with other judges before ranking students. Judges' decisions are an individual responsibility.

Speaker Number _____　　　**Speaker Name** _____

Round ☐　Prelims　　　　　　　　　**Section** _____

　　　　　☐　Finals

Yes	No	**Did the contestant communicate effectively with the audience?**
Yes	No	**Did the contestant command attention?**
Yes	No	**Did the contestant tell the story with ease?**
Yes	No	**Did the contestant exhibit enthusiasm?**
Yes	No	**Did the contestant utilize facial expressions, vocal variety and characterization?**
Yes	No	**Did the contestant make good eye contact?**
Yes	No	**Did the contestant use good posture?**
Yes	No	**Did the contestant speak clearly?**
Yes	No	**Did the contestant use gestures effectively?**

CONSTRUCTIVE COMMENTS FOR THE CONTESTANT:

Judge's signature _____

Storytelling Contest

Invitational Meet 2023-24

"Day at the Park"
Grades 2 and 3
by Kathryn Gonzales

Directions to Contest Directors: Give a copy of this sheet to each judge before the contest begins.

Directions to Judges: Each speaker must include at least one of the following elements from the story in his or her presentation. Words may vary. It is up to the judge to decide if the speaker has included one of the elements.

1. Judy and Oliver run over to the park to begin their big day out.
2. Oliver is a little scared to go on the biggest slide, but Judy encourages him. They play on the slide until spots on the swing set open up.
3. Judy and Oliver take a break from playing to eat lunch. Judy finds bubbles in her lunch box and the kids play with them until they spot the monkey bars.
4. Judy and Oliver go over to play on the monkey bars and have a lot of fun.
5. The kids head home after a long and fun day at the park.

"Day at the Park"
Grades 2 and 3
by Kathryn Gonzales

Judy walks out of her home and down the street to pick up her friend Oliver. They have a big day of playing ahead of them. Oliver is waiting outside his house and yells "Hurry up, I'm ready!" Judy quickens the pace and grabs Oliver's hand as they run into the park laughing.

Judy pulls Oliver towards the biggest slide and tells him to go first. Oliver hesitates because of how far up it is but musters up the courage to climb up the ladder rungs one by one until reaching the top.

Oliver looks down at Judy who isn't far behind and she smiles at him. Oliver takes a deep breath, positioning himself at the edge, and moves forward. He glides right down to the bottom with Judy right behind him.

"See, that wasn't so scary," Judy said. Oliver agreed and said they should do it again. Up and down they went but instead of nerves, it was excitement and squeals of joy while they slid down.

In the distance, Judy noticed that spots on the swing set finally opened up. "Look! Let's go!" She exclaimed and both children took off towards the swings. The kids made it in time to grab the last two spots. They sat down

and started swinging. They swing higher and higher, reaching for the sky as their legs kicked. Oliver encourages Judy to jump off the swing set. Judy leaps off her swing landing safely in the soft sand. Oliver follows and they head back to their swings taking turns pushing each other to get higher and higher.

Lunchtime was approaching so Judy and Oliver decide to find a grassy spot in the shade and spread out their picnic blanket. The kids unpack the delicious snacks their parents packed, and they share while laughing and talking.

"I forgot my mom packed this!" Judy says as she pulls out a bottle of bubble solution. She blows a stream of bubbles and Oliver tries to catch and pop them as they float away.

"Let's do the monkey bars before we leave" Oliver looks over, excited and says, "Those are my favorite."

The kids clean up and gather their belongings before heading over to the monkey bars across the park.

"Last one there is a rotten egg!" Oliver yells just before he takes off running. Judy gasps and picks up speed, she passes Oliver saying, "Looks like it's you!" as she places her hands on the Monkey bars.

They laugh and start climbing up and down pretending to be monkeys, making silly faces and monkey noises. They navigate their way across the

top of the monkey bars, alternating their hands as they swing from one bar to another. Oliver tells Judy to watch him as he is holding on to the bars when suddenly he gains momentum and kicks his legs up. Oliver wraps his legs around the bar and releases his hands.

Judy is watching in amazement as Oliver hangs upside down. They both start laughing at how silly Oliver looks until he reaches his hands back up to grab the bar and makes his way back down to the ground. Judy tells Oliver that it looks like it's time to head home.

They gathered their belongings their faces beaming with contentment and joy. Oliver told Judy "I had the best day, I'm glad we came to the park together".

Judy nodded in agreement "Me too! I loved playing on the swings, going down the slide, and pretending to be monkeys".

They both laughed as they took one look around before walking away from the park. As they headed home Judy and Oliver looked forward to the next chapter of their park adventures.

Invitational Meet 2023-24

"A Very Strange Birthday"
Grades 2 and 3
by Sherri Maret

Directions to Contest Directors: Give a copy of this sheet to each judge before the contest begins.

Directions to Judges: Each speaker must include at least one of the following elements from the story in his or her presentation. Words may vary. It is up to the judge to decide if the speaker has included one of the elements.

1. It is the narrator's birthday. For their birthday, the narrator's parents have given them a robot.
2. The narrator sees a book with a robot on the cover and assumes it is instructions to control the robot.
3. The narrator goes to school and tells their friends about the robot. The other kids think the narrator is lying.
4. When the narrator arrives back at home, the robot is gone.
5. The narrator feels their mother shaking them awake. They are still in their pajamas in bed. The robot was a dream. Or was it?

The strangest thing happened to me. I had to tell someone about it so it might as well be you.

It was my birthday and I woke up like normal except for one thing. I got up and got dressed and ready for school. When I went to eat breakfast, sitting in my spot was a robot.

Yep. You heard me right. There was a robot sitting in my chair.
It was as big as me. Around the robot's neck was a sign. On it was written 'Happy Birthday!'

"Happy Birthday, kiddo!" my mom said as she put bowls and cereal boxes on the table. I got the milk.

I didn't know what to say. No one I know has a robot. Not even any grownups I know.

"Where did the robot come from?" I asked. Of course I told her thank you.

Mom said that they had entered a contest and won it. They had it stored in the closet for a month and it had been tough to keep it a secret. Mom and Dad decided it would be a great birthday gift.

"What does it do?" I asked her.

"Well, we haven't turned it on yet. We were waiting for you to do that," mom said.

Okaaaaaaaay. I thought to myself. I have no idea what the robot was supposed to do but I did want to find out.

Mom said "Eat up. I'm going to let the dog out to run in the back yard."

I heard the door from the garage open and Dad came in.
"Are you done working on the car?" Mom asked Dad.

"Done. We need to talk about what we're doing to celebrate today," Dad replied.

"Is grandma and grandpa coming over?" I asked them.

"Yes. They will be eating dinner with us," Mom said as she went out the door with our dog.

I saw a thick book with a robot on the cover laying next to the cereal.

Maybe these were directions? I picked it up and started to read.

I heard a shout from the backyard. It was my mom. "Don't miss the school bus!"

This robot had to wait. I brushed my teeth in a hurry and grabbed my backpack.

My dad said, "Have a great day. We will talk about birthday plans when you get home."

I almost asked if I could stay home so I could play with my robot but I knew they wouldn't let me.

I heard the bus pull up next to my friend's house and shouted, "Bye Mom and Dad! Thanks again for the robot!" I sprinted to the bus. Whew! I made it.

This was going to be a hard day at school. How was I supposed to learn anything when all I wanted to do was turn on my robot and find out what it does?

Lessons were hard to follow since my mind was on what was sitting at my kitchen table.

I got a nudge from my friend during math class.

I told my teacher, "I'm sorry. I'm a little lost."

"We're working on the fifth question. I asked you how you would figure that answer out."

I decided I better forget about that robot because I didn't want to get in trouble.

At lunch I got to share that I got a robot for my birthday.

"Haha. There is no such thing as a robot that big that a kid can have. You're making it up," said a boy in another class.

No one believed me and thought I was pranking them. A few of my friends asked to come to my house after school so they could see it with their own eyes.

Of course I said yes. I guess I wouldn't believe it either if someone told me they got a robot for their birthday.

The bell rang for us all to go home. The bus ride home seemed to take forever.

Everyone who lived close by told me they would be at my house in a few minutes.

When I arrived home, the robot was gone!

I put my head down on the table and took a deep breath.

I needed that robot now. My friends would be knocking at my door in a few minutes!

I felt someone shaking my shoulder. It was my mom.

"Where is my robot I got for my birthday?" I asked her.

She said, "What robot?"

Are you kidding me? I thought. Then I realized I was in bed and still in my pajamas.

Was it all a dream? I thought so until I saw a book with a robot on it laying on my bookcase next to my bed.

What do you think? Was the robot real or not.

Storytelling Contest

Fall/Winter District 2023-24

"Talent Show"
Grades 2 and 3
by Sherri Maret

Directions to Contest Directors: Give a copy of this sheet to each judge before the contest begins.

Directions to Judges: Each speaker must include at least one of the following elements from the story in his or her presentation. Words may vary. It is up to the judge to decide if the speaker has included one of the elements.

1. The narrator's school is having a talent show. The narrator's grandmother, encourages the narrator to sing at the talent show. The narrator is nervous to sing in front of people that aren't their family.

2. The narrator's friends, Taylor and Jaime, are going to sing a song together, but they want the someone to play the guitar. The narrator refuses, even though they can play the guitar.

3. Two nights before the talent show, the narrator finds out Jaime had a family emergency and won't be able to make the talent show. Taylor doesn't want to perform alone and considers dropping out of the show.

4. The narrator considers taking Jaime's spot and performing with Taylor. The narrator's mom encourages them to push past their fear and try to perform.

5. The narrator decides to sing in the talent show with Taylor. They didn't win, but the narrator feels good about overcoming their fear.

"Talent Show"
Grades 2 and 3
by Sherri Maret

When my grandmother heard that there was a talent show at my school, she asked me if I was going to sing. I told her no.

"Why not?" she asked me.

She knows I love to sing because we sing all the time when I visit her. You see, my grandmother knows how to play the piano, the guitar, and the drums. Yep, you heard me right. She is a really good musician. When she was younger, she played in a band. Oh right, she can sing too.

So when I'm with granny, she teaches me new things on all those instruments plus we sing. A lot.

"I guess I'm surprised you're not entering this talent show," she told me. "You are a really good singer."

My parents tell me the same thing all the time. The problem is that I don't like to sing in front of people that aren't my family.

Granny then said, "Maybe you'll change your mind."

I didn't think so.

Two of my friends are signing up to do it. They are going to sing a song with each of them taking a part that they would sing alone. Those are called solos in case you didn't know.

"Our song would be better if we had someone to play the song on a guitar," Taylor said to us.

"I thought so too," Jaime said.

Then they both looked at me. They knew I played.

"Don't look at me," I told them.

So my friends practiced and practiced. It was acapella. That means to sing without any backup from instruments or a music recording. They will do just fine without my help. I think they could win!

A week later I tagged along to go to the talent show meeting. The teacher in charge talked about what order people were in and to let her know how much time each act would need to set up. My friends decided on a name. It was Two Singers and a Song. I thought it was a good name.

Two nights before the talent show, I showed up to watch my friends practice.

"Where is Jaime?" Taylor grumbled. I think everyone was getting a little nervous about performing. I was and I wasn't even in the show.

Taylor's mom poked her head into the room and said, "I got some bad news."

"What?" asked Taylor.

"Jaime's grandfather got really sick. He was taken to the hospital. Jaime and her family had to leave town suddenly. Jaime won't be back for a few days. I'm so sorry," she explained.

"Oh no!" cried Taylor. "I'm sorry about her grandfather being in the hospital but I am pretty sad about the talent show too." I could see Taylor was really upset.

Taylor's mom said that maybe Taylor could perform alone.

"I don't think I could do that by myself," Taylor told her.

Inside me I had butterflies. I wanted to say I could sing with Taylor but I also didn't want to say anything. My stomach started to hurt a little bit.

"I guess I'm dropping out of the show," Taylor said. "I'll tell the teacher tomorrow."

I could see that Taylor didn't want me to hang around so I walked home. All I could think about was if I had it in me to get up with Taylor in front of all those people to help her out.

I told my mom what had happened. I also told her how I was feeling.

"I know I could do Jaime's part and it would make Taylor so happy," I told her. "I just get really scared about doing it."

My mom got me a glass of milk and a couple of cookies and sat down at our kitchen table.

"Look. You need to do what you want to do. No pressure. I will tell you that sometimes the fear of doing things holds people back from doing things they really want to do," Mom said.

"My stomach is hurting so much," I grumbled.

"How long is the song?" Mom asked.

"Around three minutes," I told her.

"I support your decision either way. To help Taylor or not," she said. "I also think three minutes would go fast doing something that you love. Especially if you just sing like you are singing for your family at home."

I thought about that for quite a while. Three minutes. Maybe I should do it because it isn't anything near like what my grandmother did. She sang song after song for a couple of hours back when she was younger…hmmmm.

The next day I told Taylor, "I'll sing with you and play my guitar. Having my guitar will make me feel better."

Taylor said, "Really! Thank you so much! You are a such a good friend! Thank you! Thank you! Thank you!"

So that night Taylor and I practiced. The Talent Show was the next day so we worked hard that night. You know what? The practice gave me confidence and having Taylor's mom listen and help us out was great.

We didn't win the Talent Show, but I think I did win because I overcame a big fear. My parents and grandmother gave us a standing ovation. I felt really good about it.

Storytelling Contest

Fall/Winter District 2023-24

"Summer Camp Won't be Fun AT ALL!"
Grades 2 and 3
by Sherri Maret

Directions to Contest Directors: Give a copy of this sheet to each judge before the contest begins.

Directions to Judges: Each speaker must include at least one of the following elements from the story in his or her presentation. Words may vary. It is up to the judge to decide if the speaker has included one of the elements.

1. The narrator and their best friend Terri usually go to summer camp together, but this year, Terri can't go. The narrator is very upset about this.

2. Upon arriving at the camp, the narrator meets their camp counselor and joins their group—the Bobcats. The narrator's parents try to encourage the narrator to have fun, even if Terri isn't there.

3. At the camp this summer, there is a new kayak race for the campers to participate in. The narrator and their tent neighbor Taylor decide to sign up to learn to kayak for the race.

4. The narrator learns they are good at paddling the kayak, while Taylor is not. The narrator has a lot of fun learning to kayak.

5. On the last day of camp, the narrator's parents come to pick them up. They ask if the narrator had fun, and the narrator replies they had a lot of fun and they were going to tell Terri all about it.

Storytelling Contest

Fall/Winter District 2023-24

"Summer Camp Won't be Fun AT ALL!"
Grades 2 and 3
by Sherri Maret

I don't know what to do. Me and my best friend were going to summer camp together for a week. We talked about swimming in the lake, fishing, sleeping in tents, and all those other fun things.

"I want to learn how to hit those big bullseye targets with an arrow," Terri said to me.

"That would be fun! I think we can sign up for horse-backing riding, too" I said.

After the last day of school, Terri told me that summer camp was off.

"What do you mean?" I asked.

"My dad got a new job. I can't go," Terri replied.

"You're moving!?" I thought I was going to start crying which would have been embarrassing.

"No. My dad has to go do some training for his new job and mom wants to take me and my little sister, too," Terri explained. "So we are staying in a hotel on the beach while dad works. It's kind of a family vacation but dad will be working during the day."

I walked home and kicked every rock along the way. I was mad and I was sad. If Terri didn't go to summer camp, then I didn't want to go either. Camp would not be fun.

At supper I told my parents, "Terri can't go to summer camp so I don't want to go either."

My dad said, "I know there are other kids from school going. Just because Terri can't go, doesn't mean you have to cancel."

"We were sharing a tent. We were doing all the fun things together," I told them. "It won't be any fun without my best friend!"

"I'm just glad Terri's family isn't moving. That's the bright side, right?" Mom told me.

"Don't forget your mom is helping Aunt Rosa after her surgery while you're gone. I think you would have a lot more fun at camp than being here with a sitter," Dad said as he patted me on the back.

I didn't eat much supper because I was in a grumpy mood.

A few days later, my mom showed me the list of camping stuff I needed. "I have everything but your clothes checked off the list. You're going to have fun if you let yourself," my mom told me.

How could I have any fun without Terri? I felt myself getting into a grumpy mood again.

My parents took me to the camp.

My camp counselor seemed like a fun person and said, "Hey there! You're in my group called the Bobcats. Once you have said your goodbyes to your parents, I'll take you bobcats to your tents."

I hugged my parents and said goodbye.

"Try to have fun," my mom said before they left.

I just muttered, "Yeah, right."

Me and the other campers followed our counselor down a trail to our campsite. We put up our tents and got our equipment sorted. As I lay in my sleeping bag that night, I thought the first day at camp wasn't terrible.

The next day we had stations of different things to do. They had something new this summer.

The camp leader announced, "So campers, you may have noticed we have kayaks in the lake that are perfect for your size. Those who want to try them out can sign up. On your final day here we are going to have a kayak race for those who are up to the challenge."

"Are you going to sign up?" asked Taylor who was in the tent next to mine. "I want to try. What about you?" I asked.

Taylor and I both signed up. The next day we learned the basics and then the counselor let us paddle around. Taylor was getting frustrated, but I loved it.

The next day we were asked who wanted to sign up for the race. If you signed up for it, you were able to get more practice time in the lake.

I asked Taylor, "Are you going to race?"

"No, I keep getting turned around. I hope you are. You are really good," Taylor told me.

"I think I will," I decided.

You know I was pretty good at it and got better and better. There were a couple of other campers that would probably beat me but I didn't care. I was having a fun time in the kayak.

The day of the race came which was the last day of camp. All of the parents were there to pick up us kids but some came to watch our kayak race.

"You signed up?" my dad asked.

"Yep!," I told them.

"Are you saying you actually had some fun?" my mom asked.

"No. I had a lot of fun," I told them.

I had a lot to tell Terri when I got home.

Storytelling Contest

Spring District 2023-24

"Pirates"
Grades 2 and 3
by Kathryn Gonzales

Directions to Contest Directors: Give a copy of this sheet to each judge before the contest begins.

Directions to Judges: Each speaker must include at least one of the following elements from the story in his or her presentation. Words may vary. It is up to the judge to decide if the speaker has included one of the elements.

1. The pirate ship, led by Captain Eli, departs from shore to take on a new adventure.
2. The crew swabs the decks before getting into their hammocks to sleep for the night.
3. In the morning, Captain Eli shouts "Land, ho!", alerting the crew that they've made it to their destination. The crew prepare to get into smaller boats to paddle to shore.
4. Once on the island, the crew begins to trek through the jungle following Captain Eli's map.
5. The crew finds a cave and begins to dig, eventually finding a treasure chest.

Storytelling Contest

Spring District 2023-24

"Pirates"
Grades 2 and 3
by Kathryn Gonzales

The sun was just starting to rise as the crew marched across the gangway onto the ship. Once everyone was accounted for in the manifest, they were ready for their voyage.

"Weigh Anchor you scallywags!" ordered Captain Eli. Members of the crew swiftly took their places at the turnstile and with all their force, pushed their individual bars simultaneously taking them in a circle to lift the anchor.

Captain Eli yelled "Hoist the sails! Hoist the colors!" and members of the pirate crew leaped into action. They worked together pulling the ropes in unison while chanting "heave-ho, heave-ho" until the white cloth was so high it resembled clouds.

Once the sails caught wind and the ship was moving, the Captain took his place at the helm steering them towards their destination.

As the ship was steady on its course, the Captain gave the crew orders to swab the decks. Members of the crew threw over empty buckets attached to a rope to collect the water from the ocean. Once everyone was armed with their mop and buckets, they set out to work.

Each person dunked their mop into the water-filled bucket and slapped the mop down on the filthy deck pushing it back and forth, scrubbing until time for the captain's inspection.

Captain Eli marched across the deck observing the crew's work. "Argh! Fine job me hearties!" the captain proclaimed before ending the day. Crew members headed down the steps one by one to the below-deck sleeping quarters. Each individual hung their hammocks up from the beams in the ceiling making sure to knot the rope securely so they wouldn't come crashing down in the middle of the night.

The morning was quiet when the crew heard the captain shouting "Land, ho!" pointing to the island in front of them. They prepared the small boats that would bring them to the island and filled them with members of the crew along with the captain. The crew grabbed hold of their oars and moved them back and forth in unison through the water pushing the boats closer and closer to the shore.

As the edges of their boats hit the sand the pirates jumped out and pulled their boats ashore. The captain unfolded his map out in front of him and used his compass to calculate their direction.

"This way!" Captain Eli yelled as he started trudging through the damp sand into the jungle.

A few crew members walked in front of the captain clearing the way and cutting down vines and brush. Exhausted from the heat they stopped at a freshwater stream to rest and collect water for drinking.

"It's not much farther," The captain said. The crew groaned that they wanted to go back to the ship, but the captain told them it would be worth it. Reluctantly they got up and continued their journey until, to their surprise they came upon some caves.

"It's here!" Captain Eli hollered "I knew we would find it". The cave opening was tall and ominous, but as they entered, the light of the lantern caused the rock to sparkle. Captain Eli slowly approached a large boulder in the back of the cave and told the crew "Dig here". The pirates wearily dug their shovels into the ground, scooping dirt until they tired and switched. *Thunk*

"I think we've hit something!" one member shouts.

Captain Eli rushes over pushing the people aside. "We found it!" The chest was heavy and took almost every man to push out of the hole. The pirates urged the captain to open it and take a look so he obliged. They pried the chest open to reveal more gold and silver than they ever could have imagined.

"You're right. It was worth it" a crew member sighed. After dividing the treasure, the crew headed off into the sunset to spend their riches.

Storytelling Contest

Spring District 2023-24

"Moving in the Summer Stinks"
Grades 2 and 3
by Sherri Maret

Directions to Contest Directors: Give a copy of this sheet to each judge before the contest begins.

Directions to Judges: Each speaker must include at least one of the following elements from the story in his or her presentation. Words may vary. It is up to the judge to decide if the speaker has included one of the elements.

1. The narrator has moved houses during the summer. They miss their old neighborhood. Last night, the narrator and their family were playing a board game when they heard an owl in the backyard.

2. The next day, the narrator was playing in the yard with their dog, Cotton, when the next door neighbor introduced herself. Her name is Lily, but most people call her Auntie.

3. Auntie invites the narrator and their mother over to her house, which has a massive garden. Auntie tells them about her garden helpers, Michael and Maria.

4. The narrator goes to help in Auntie's garden with Michael and Maria and learns they both go to the narrator's school.

5. While at Auntie's garden, the kids learn about caterpillars, butterflies, and owls. The narrator gets to take a plant home to make their own garden at home. The narrator feels more comfortable in their new neighborhood.

My new house and neighborhood are great. The only problem was summer. At my old house I would be playing at my friend's house all the time. She and the other kids in the neighborhood would swim and play there, too. I miss Tamara and her pool! Moving during the summer stinks.

I don't know anyone here. I've ridden my bike around the block a few times but haven't seen anyone my age playing yet. My mom tells me I should be patient. It is hard to be patient.

Last night my mom and dad played a board game with me at the kitchen table. Our back door was open.

Whooooooooooooooooooo whooooooooooooooooooo. I stopped to listen to the owl.

"Did you hear that?" I asked my parents.

"Yes, let's listen," my dad said.

An owl hooted again.

"This neighborhood has quite a bit of wildlife," my mom said.

I did like that there were a lot of big trees around us and we had a nice climbing tree in the front yard. Can't say that I had seen a lot of wildlife. Hmmmmm.

The next morning, I played with Cotton. He is a white fluffy mix of a lot of dogs. He is friendly and right now my best friend and only friend.

"Sit, Cotton!" He sat.

"Shake, Cotton!" He shook.

"Roll over, Cotton!" He doesn't. Well maybe tomorrow he will.

I heard someone in the backyard next to mine. I was curious, so I peeked through the crack in the fence. The older lady next door was planting some flowers.

Cotton barked. He was peeking at her too.

"Hello there," The lady called out.

"Um. Hi." I replied.

The lady asked me if I liked our new house and some other things.

"Yes, ma'am." My mother always told me to use good manners. Please and thank you along with calling a lady ma'am or a man sir was something I did without thinking about it too much. Habit I guess.

The lady asked, "I just made lemon-blueberry bread and some ice tea. Would you and your mother like to join me?"

"Let me check with my mom," I told her. My mom liked the idea so we headed over to her house.

"Nice to meet you," she said. "I'm Lily. People in the neighborhood call me Auntie, too." She said that she never had children, so she considered everyone around her as family. I thought that was nice.

My mom thanked her for inviting us.

"I'm so glad you could join me," she replied.

I asked if I could look around. This wasn't like any backyard I had ever seen. It has paths running through gardens with flowers everywhere. It was almost magical.

I heard my mom say, "Oh my! Your yard is like a giant garden! It's beautiful!" Auntie said it was a lot of work, but she had a gardener visit once a week to do things she couldn't. She also had little helpers, too.

"What kind of little helpers?" I asked.

She told me, "Well Maria and Michael help me today and then other helpers come on other days. Would you like to meet them?"

I said yes and she asked my mother if I could come back when her helpers showed up.

My mom said of course. We headed home.

An hour later, there was a knock at the door.

"Hi! I'm Michael. Auntie said you were going to come over to her house?" he asked.

So I told my mom I was leaving and left with Michael.

I found out he goes to the school that I will be going to when school started. His sister was a year younger than I was and Michael was a year older. I was so happy.

"This is Maria," Auntie said when I walked into the garden.

"Come look! We found black swallowtail caterpillars!" Maria was really excited about this.

I wasn't sure what to say and followed her down a path.

She explained that Auntie loved butterflies and bees and that is why her garden was so amazing.

"We see all kinds of butterflies, caterpillars, bees, and birds here. I've learned so much from her," Maria told me.

I crouched down to get a look at a plump green caterpillar with some yellow and black on it."

Maria told me that sometimes they would find a chrysalis too. Last summer they saw a butterfly that was coming out of the chrysalis. I thought this was fun learning stuff in Auntie's garden.

"Have you heard the owl, Auntie?" Maria asked.

"Oh yes, we were chatting last night," Auntie said.

"You talk to owls?" I asked.

She laughed and said she tried to talk to all animals. Owls just sometimes answered back. I was liking Auntie more and more.

We did some weeding for Auntie and then she asked if we wanted to take some flowers that needed to be planted to put in pots or in our own garden.

I thought that was a great idea and so did my mom.

So that is how I met my first great friends. That includes Auntie who helped my mother and I create a garden in our own yard so we could have wonderful wildlife like she did.

The summer didn't turn out stinky at all.