



# UIL Computer Science Competition

## Invitational A 2024

### **JUDGES PACKET - CONFIDENTIAL**

#### **I. Instructions**

1. The attached printouts of the judge test data are provided for the reference of the contest director and programming judges. Additional copies may be made if needed for this purpose.
2. This packet must remain CONFIDENTIAL. Additional copies may be made and returned to schools when other confidential contest material is returned.

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**Problem #1**  
**60 Points**

**1. Akansha**

**Program Name:** Akansha.java

**Input File:** None

**Test Input File:**

None

**Test Output To Screen:**

2023 UIL COMPUTER SCIENCE STATE CHAMPIONS

1A 501 ASPERMONT

2A 838 SAN AUGUSTINE

3A 921 FORT WORTH HARMONY INNOVATION

4A 1026 NEEDVILLE

5A 1193 FRISCO LEBANON TRAIL

6A 1186 ALLEN

**Problem #2**  
**60 Points**

## 2. Andrew

**Program Name:** Andrew.java

**Input File:** andrew.dat

**Test Input File:**

```
10
7
100
63
42
2520
1
23
72
60
625
```

**Test Output To Screen:**

```
ONE SEVEN
ONE TWO FOUR FIVE
ONE THREE SEVEN NINE
ONE TWO THREE SIX SEVEN
ONE TWO THREE FOUR FIVE SIX SEVEN EIGHT NINE
ONE
ONE
ONE TWO THREE FOUR SIX EIGHT NINE
ONE TWO THREE FOUR FIVE SIX
ONE FIVE
```

**Problem #3**  
**60 Points**

### 3. Bautista

**Program Name:** Bautista.java

**Input File:** bautista.dat

**Test Input File:**

```
10
university
aardvark
brrr
computer
science
aaaaa
ouch
uil
champion
contest
```

**Test Output To Screen:**

```
OUCH!!!nOUCH!!!vOUCH!!!rsOUCH!!!ty
OUCH!!!OUCH!!!rdvOUCH!!!rk
brrr
cOUCH!!!mpOUCH!!!tOUCH!!!r
scOUCH!!!OUCH!!!ncOUCH!!!
OUCH!!!OUCH!!!OUCH!!!OUCH!!!OUCH!!!
OUCH!!!OUCH!!!ch
OUCH!!!OUCH!!!l
chOUCH!!!mpOUCH!!!OUCH!!!n
cOUCH!!!ntOUCH!!!st
```

**Problem #4**  
**60 Points**

## 4. Chuanli

**Program Name: Chuanli.java**

**Input File: chuanli.dat**

**Test Input File: (indented lines are continuation of previous line)**

```
11
eM stI olleH
snoitaluclac ym ot gnidrocca
A na em eviG syaS ilnauhC
ekarD ta gnikool em si emeM naM redipS ehT
em ro yerbuA ti si todK ti sI
tneve nonaC a stI
sraey fo snoillim rof no egar lliw taht erif a ni htrae eht flugne lliw
    msylcatac gnitluser eht dna edilloc lliw noom eht dna nuS ehT
C B ,A
A B C
BNJUYGBNJUYGBNMKIUYBNKUY
L A S D F G H J K L P O I U Y T R E W Q AA Z X C V B M M K H R 12 DFGHYTRED
    JUYTREDFGHJ REDCVBJUYTR SDCVBNJUYTRESDFHJ ETRD WED5TRED REFT54ER R54ERT54R
    !@#$$%^&*()
```

**Test Output To Screen: (indented lines are continuation of previous line)**

```
Hello Its Me
According to my calculations
Chuanli Says Give me an A
The Spider Man Meme is me looking at Drake
Is it Kdot is it Aubrey or me
Its a Canon event
The Sun and the moon will collide and the resulting cataclysm will engulf the
    earth in a fire that will rage on for millions of years
A, B C
C B A
YUKNBYUIKMNBGYUJNBGYUJNB
) (*&^%$#@! R45TRE45R RE45TFER DERT5DEW DRTE JHFDSEPTYUJNBVCDS RTYUJBVCDER
    JHGFDERTYUJ DERTYHGFD 21 R H K M M B V C X Z AA Q W E R T Y U I O P L K J H G
    F D S A L
```

**Problem #5**  
**60 Points**

## 5. Dominika

**Program Name: Dominika.java**

**Input File: dominika.dat**

**Test Input File:**

```
11
-7 -11 -1 -5
2 -16 8 -5
9 19 17 -15
15 -4 -10 -8
-14 11 -10 -10
-17 -5 0 -15
-5 16 -7 -16
-5 -4 6 13
-5 1 -19 -2
-1 0 1 0
0 -1 0 1
```

**Test Output To Screen:**

```
TEST CASE: 1
(-9.20,-2.80)
(1.20,-13.20)
TEST CASE: 2
(-4.53,-5.30)
(14.53,-15.70)
TEST CASE: 3
(-16.44,-4.93)
(42.44,8.93)
TEST CASE: 4
(-0.96,15.65)
(5.96,-27.65)
TEST CASE: 5
(-30.19,-2.96)
(6.19,3.96)
TEST CASE: 6
(-17.16,-24.72)
(0.16,4.72)
TEST CASE: 7
(-33.71,1.73)
(21.71,-1.73)
TEST CASE: 8
(-14.22,14.03)
(15.22,-5.03)
TEST CASE: 9
(-14.60,11.62)
(-9.40,-12.62)
TEST CASE: 10
(0.00,-1.73)
(0.00,1.73)
TEST CASE: 11
(-1.73,0.00)
(1.73,0.00)
```

**Problem #6**  
**60 Points**

## 6. Gerald

**Program Name: Gerald.java**

**Input File: gerald.dat**

**Test Input File:**

```

4435
5652  4415  4368  4754  2858  6758  7743  1210  1047
4537  8714
9316  6834  9433  7647  3849  8348  5486  4673
7067  3668  3777
7956  7395  6116  6380  1783  9444  6683
4843  1050  7750  8991
9876  1837  1514  8536  5569  7563
2976  6998  6816  2297  9655  2339  7463  4805  1495
4191  5357  7013  8854  8199  1046  5319  6151  2851  3620
    
```

**Test Output To Screen:**

```

COUNT:59
SMALLEST:1046
LARGEST:9876
MEAN:5547.8
    
```

**Problem #7**  
**60 Points**

## 7. Hiro

**Program Name: Hiro.java**

**Input File: hiro.dat**

**Test Input File:**

10  
MCMIV  
XIVII  
IVI  
MCMLXXXIV  
LXXX  
DCCLXXXVI  
MCCXCVIII  
MMXVII  
CIX  
XCVIII

**Test Output To Screen:**

1904  
16  
5  
1984  
80  
786  
1298  
2017  
109  
98



**Problem #8**  
**60 Points**

**8. Joan**

**Program Name: Joan.java**

**Input File: joan.dat**

**Test Input File:**

The Computer Science contest challenges students to study a broad range of areas in computer science and has both an individual and a team component. Competition consists of a minute written exam for both components along with a two hour programming contest for teams.

At all levels of competition individual places are determined solely by written exam scores. All contestants compete for individual honors at all levels of competition. Individuals placing first, second, and third advance to the next level. For the team component, the teams' top three scores on the written exam are added to its score in the programming session to produce an overall team score. First place teams advance to the next level of competition.

The contest was established in the school year with several goals in mind. Among them were the goals of further strengthening the University Interscholastic League math and science program with a new technological component and to support Texas public schools in meeting the growing demand for computer education.

Stringing collection of wordy wordy words just to make an average length longer and longer than the student data sample, but it is challenging to say the least, but not the most. Java is the designated programming language for

University Interscholastic League.  
Computer Science and Information Technology Rule the World.  
Finally go there.

**Test Output To Screen:**

172 words with an average length of 7 letters

**Problem #9**  
**60 Points**

## 9. Manisha

**Program Name:** Manisha.java

**Input File:** manisha.dat

**Test Input File:**

```
12
WER +NO+ S / TR ANG E+ T/O+ LO V/E
YO U+KN OW+TH/E +R U/LE/S+A ND +S/O+DO +/I
/A+ /FUL+C /OMITE NS+W H/AT+IM+T HI/ NKG +OF
Y O/U+WO UL/DNT+G ET+T/HI S+F/ROM+ AN Y+OT/H ER+G/UY
I+ JUS T+WA/N+ TEL +YO/U +H/OW +IM+ F/E LI NG
G OTA+M A/KE+Y O/U +UN D/ERS T/A
NEV R+G O/N A+G/I VE+YO U+/UP
NEVR +G/ON A+L/ET+ YOU +D/O WN
NE VR+G O/NA+R U/N +A RO/U ND +A/ND +DE S/RT +Y/O U
N E/VR+G /ONA+ /MAK E+YO U+C/R Y
N E/VR+ GO/NA +S /AY+ GO DBY/E
N E/VR+ GO/NA+T E/L+A +L/IE +A/ND +H/UR T+ YO/U
```

**Test Output To Screen:**

```
NO+/OT+ERW+/ELOV+AEGNRS/T
/I+DO+/OS+ADN+/EHT+OUY+KNOW+E/LR/SU
/A+FO+IM+/FLU+/AHTW+GHIK/NT+CEIMN/OST
ANY+EGT+G/UY+O/UY+FMO/R+/HIST+E/HORT+/DLNOTUW
I+IM+A/NW+ELT+H/OW+O/UY+JSTU+/EFGILN
O/UY+AE/KM+AGOT+/AD/ENRSTU
P/U+OUY+AG/NO+EG/IV+ENRV
/ELT+OUY+AGN/O+DN/OW+ENRV
AD/N+/NRU+/OUY+AG/NO+ENRV+DE/RST+ADNOR/U
C/R Y+OUY+AEK/M+AGN/O+ENR/V
/ASY+AG/NO+ENR/V+BD/EGOY
A+AD/N+E/IL+E/LT+O/UY+AG/NO+ENR/V+HRT/U
```

**Problem #10**  
**60 Points**

# 10. Patryk

**Program Name: Patryk.java**

**Input File: patryk.dat**

**Test Input File:**

```
50
53334 82529 47619 40058 90010 23633 60058 49703 62205 56691
73206 11966 77917 73727 20058 58657 68587 45595 73853 67357
72704 68846 63854 86891 14006 22229 57124 96433 11027 84600
56052 29903 28595 31476 18155 26546 25819 23378 52995 35956
76081 15970 43909 95754 61556 97443 76534 41402 85527 14323
```

**Test Output To Screen:**

```
84600
90010
15970
76081
56691
86891
41402
56052
49703
29903
14323
96433
23633
97443
73853
72704
57124
53334
76534
95754
63854
62205
18155
45595
28595
52995
```

*Continued from previous column...*

```
14006
73206
26546
68846
61556
35956
11966
31476
77917
11027
85527
73727
67357
58657
68587
20058
40058
60058
23378
43909
47619
25819
22229
82529
```

*Continues next column...*

**Problem #11**  
**60 Points**

## 11. Rodrigo

**Program Name: Rodrigo.java**

**Input File: rodrigo.dat**

**Test Input File:**

```
12 20 2500
Prague 4.3 321.43 9 2.7
Milan 3.7 456.70 9 4.2
Casablanca 2.6 134.52 5 3.8
Paris 1.2 1000.03 10 2.5
Beijing 3.5 300.54 7 3.9
Bogota 2.4 140.23 3 4.8
Mexico_City 1.9 249.85 6 4.9
Moscow 1.2 333.33 8 1.2
Cape_Town 3.4 305.68 7 3.0
Sydney 3.6 278.23 8 1.3
Tokyo 4.3 412.39 10 3.9
Dubai 3.3 189.43 4 2.4
Prague Milan 400
Milan Casablanca 700
Prague Paris 550
Casablanca Paris 700
Dallas Paris 1400
Dallas Casablanca 1300
Milan Beijing 2100
Casablanca Beijing 2000
Bogota Dallas 650
Mexico_City Dallas 350
Mexico_City Bogota 350
Bogota Casablanca 1100
Prague Cape_Town 1200
Cape_Town Casablanca 900
Tokyo Sydney 500
Tokyo Dallas 2500
Sydney Beijing 700
Casablanca Dubai 750
Dubai Sydney 1400
Cape_Town Dubai 1800
Moscow Prague 900
Beijing Moscow 2300
Moscow Dallas 4000
Mexico_City Milan 1400
Paris Bogota 1800
```

**Test Output To Screen:**

```
1: Tokyo
2: Paris
3: Milan
4: Prague
5: Cape_Town
6: Mexico_City
7: Casablanca
8: Dubai
9: Bogota
```

**Problem #12**  
**60 Points**

## 12. Svetlana

**Program Name:** Svetlana.java

**Input File:** svetlana.dat

**Test Input File:**

```
5
-----
_ r _ r _ B _ r
r _ r _ _ _ r _
_ r _ _ _ _ r
_ _ R _ _ _ _
_ _ b _ _ _ _
_ _ b _ _ _ _
_ b _ _ _ _ _
b _ b _ b _ R _
-----
_ r _ r _ B _ r
r _ r _ _ _ r _
_ _ R _ _ _ _
_ _ b _ _ _ _
_ _ b _ _ _ b _
_ b _ b _ _ _
b _ b _ b _ R _
-----
_ r _ r _ B _ r
r _ r _ _ _ r _
_ r _ _ R _ _ r
_ _ R _ _ _ _
_ _ b _ _ _ _
_ _ b _ _ _ b _
_ b _ b _ _ _
b _ b _ b _ R _
-----
_ r _ r _ r _ r
r _ r _ r _ r _
_ r _ r _ r _ r
_ _ _ _ _ _ _
b _ b _ b _ b _
_ b _ b _ b _ b
b _ b _ b _ b _
-----
_ _ _ _ _ _ _
_ _ _ _ _ _ _
_ _ _ _ _ _ _
_ _ _ _ _ _ _
_ _ _ _ _ _ _
_ _ _ _ _ _ _
_ _ _ _ _ _ _
```

**Test Output To Screen:**

```
Test case: 1
Red valid single moves: 10
Black valid single moves: 7
Test case: 2
Red valid single moves: 12
Black valid single moves: 10
Test case: 3
Red valid single moves: 14
Black valid single moves: 8
Test case: 4
Red valid single moves: 7
Black valid single moves: 7
Test case: 5
Red valid single moves: 0
Black valid single moves: 0
```

