

24F-1. $(2.17 - 0.855)/(-86.7)$ ----- 1= _____

24F-2. $(-0.972 + 0.549 - 0.292) \times 0.759$ ----- 2= _____

24F-3. $(-9.97 + 20.5 - 3.32)/(-7.63) + 0.731$ ----- 3= _____

24F-4. $\frac{(5770 - 5750)}{\{(0.256)/(8.45)\}} + (328 - 87.6)$ ----- 4= _____

24F-5. $1.62 \times 10^8 + 6.64 \times 10^7 - 1.45 \times 10^8 + \frac{(-28000 + 14600)}{(0.00121)(-0.0817)}$ ----- 5= _____

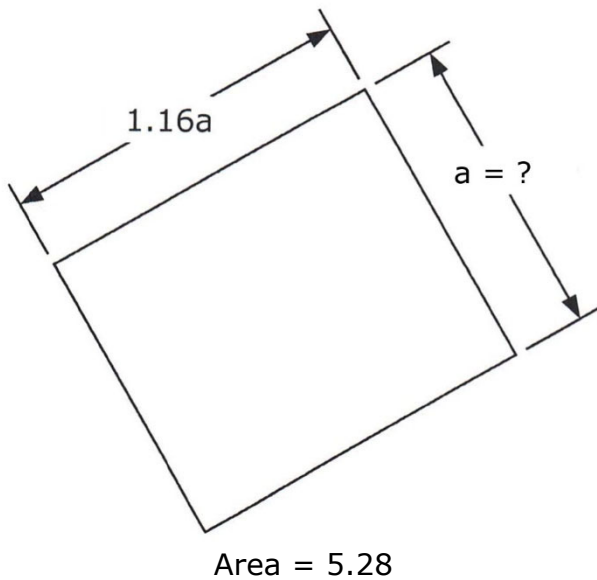
24F-6. What is 706 divided by 0.0593? ----- 6= _____

24F-7. What is the remainder of 5870 divided by 9.81? ----- 7= _____

24F-8. Sam walks 6 laps around a 440-yd track. How far did he walk? ----- 8= _____ yd

24F-9.

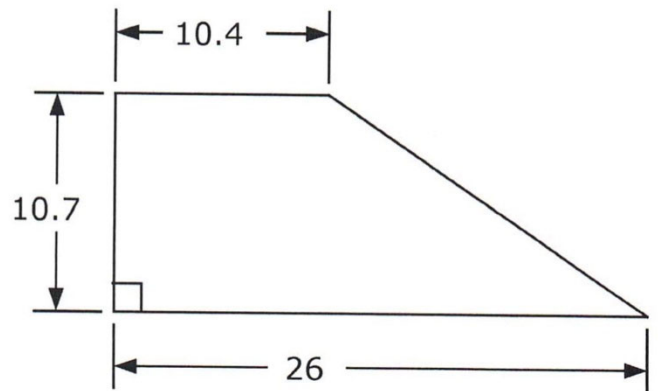
RECTANGLE



24F-9 = _____

24F-10.

RIGHT TRAPEZOID



Perimeter = ?

24F-10 = _____

24F-11. $\frac{(-218)(851) - (-217)(226) + 1.24 \times 10^5}{-8.72 \times 10^5 + (-642)(824)}$ ----- 11 = _____

24F-12. $\frac{(0.0888 + 0.0267 - 0.036)(-0.0225)(-0.055)}{(7.15 - 6.84)(-0.074 - 0.175)}$ ----- 12 = _____

24F-13. $\frac{(-9.27 \times 10^{-5} - 1.28 \times 10^{-4})\{-30.4 + (\pi)(-2.46)\}}{(6.57)(-0.821 + 0.544)(-7.46)(4.01)}$ ----- 13 = _____

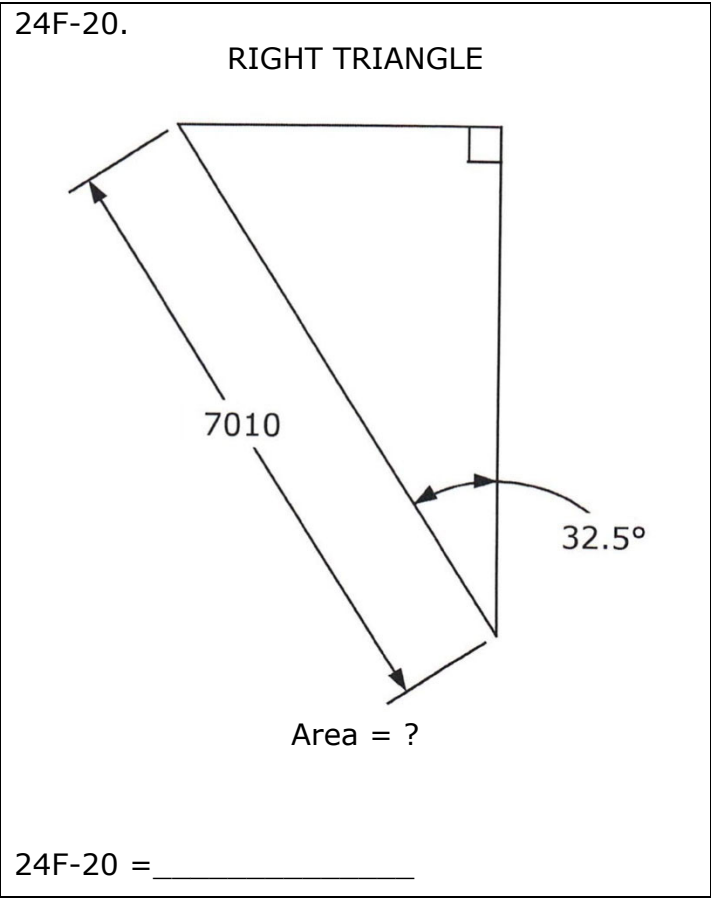
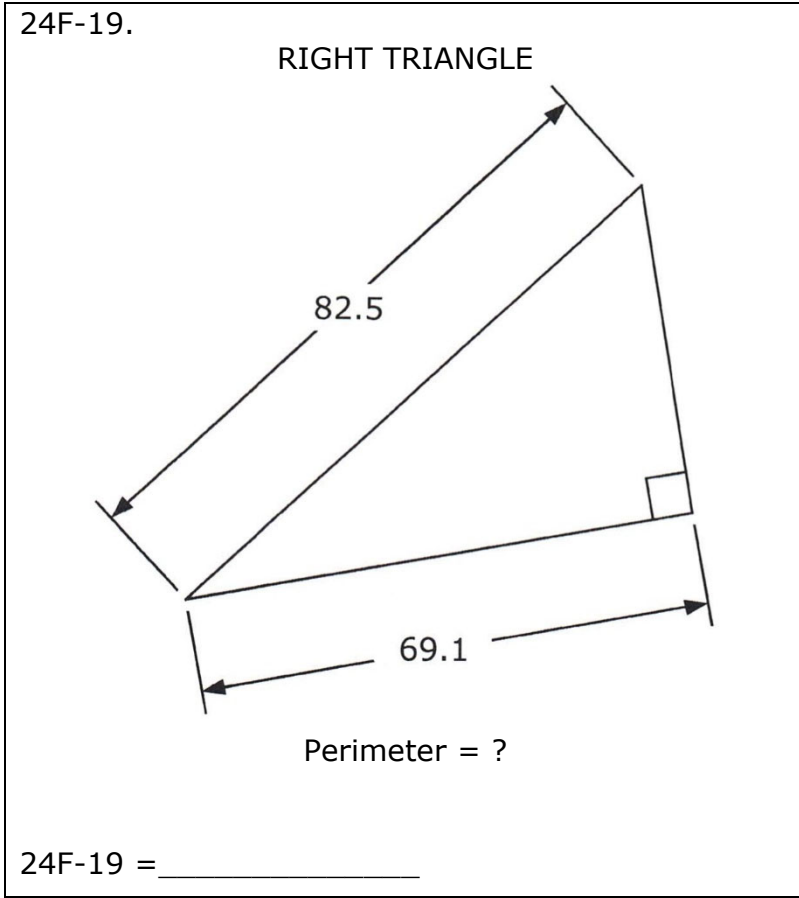
24F-14. $\frac{(64.4 + 28)(4.21 + 14.6)(74.9 - 566)}{(-0.616 + 0.399)(0.993)\{(-0.172)/(-0.144)\}}$ ----- 14 = _____

24F-15. $\frac{(16000 + 12700 - 29500)(0.985 - 0.851 - 1.13)}{(9.98)(8.26)(\pi)(6.12 + 2.92 + 7.55)}$ ----- 15 = _____

24F-16. Text 0.5 in tall is easily legible from 6 ft away. What should the text on a billboard be to be easily legible for someone in a car 0.1 mi away? ----- 16 = _____ in

24F-17. Don and Mary celebrated their 50th wedding anniversary. How long were they married? ----- 17 = _____ sec

24F-18. Ted invested \$1250 but lost money. If the percent decrease was 12.7%, how much money did he lose? ----- 18 = \$ _____



24F-21. $\sqrt{\frac{(4.57)(1.79)}{193 + 137}} + 0.0794$ ----- 21= _____

24F-22. $\left[\frac{(0.314)(0.546)}{-8.84} + 0.018\right]^2 + \sqrt{1.09 \times 10^{-12}}$ ----- 22= _____

24F-23. $[-77.1 + \sqrt{2590}]^2 \times [665 + 1330]^2 \times \sqrt{0.552/0.824}$ ----- 23= _____

24F-24. $(0.198)(94.7) + \sqrt{(24.2)/(5.29)} + [(0.272)(\pi)]^2$ ----- 24= _____

24F-25. $\frac{\sqrt{0.0565 + 0.0289 + (0.00691)/(0.0823)}}{-0.0107 + 0.00663}$ ----- 25= _____

24F-26. A Farmer Pat walked off a square, one-acre field. She estimated the side dimension to be 195 ft. What was the percent error in her measurement? ----- 26= _____ %(SD)

24F-27. The mass of earth's moon is $7.34767309 \times 10^{22}$ kg. A meteorite weighing 11,000 lbs crashes into the moon. What is the percent change in moon mass? ----- 27= _____ %

24F-28. The product of two consecutive, positive integers is 407,682. What is their sum? ----- 28= _____ integer

24F-29. RECTANGULAR SOLID

Volume = 101,000

24F-29 = _____

24F-30. SQUARE PYRAMID

Total Surface Area = ?

24F-30 = _____

24F-31. $\frac{(-6.97 \times 10^6 + 8.58 \times 10^6)^2}{\sqrt{29.4 - 4.96}} + \frac{4.52 \times 10^{14}}{\sqrt{6.20 \times 10^6 + 1.29 \times 10^7}}$ ----- 31= _____

24F-32. $\frac{1}{0.00216} + \frac{1}{\sqrt{5.98 \times 10^{-6}}} + \frac{(8.97 + 12.9 - 11.5)^2}{\sqrt{0.443 - 0.1}}$ ----- 32= _____

24F-33. $\frac{(9.09 \times 10^5)^2(1.17 \times 10^{-12} + 1.89 \times 10^{-13})}{8.67 + (-0.858)(-11.2)} + \frac{1}{\frac{1}{0.038} + \frac{1}{(-0.0405)}}$ --- 33= _____

24F-34. $\frac{[(0.397 - 0.12)(0.803/0.306)]^{1/2}}{(0.268)^2 + (0.157 + 0.232)^2 + 0.113}$ ----- 34= _____

24F-35. $\frac{\left[\frac{\sqrt{4540 + 4800}}{(2110)(3160) + (2590)^2} \right]}{\sqrt{639 + 1200} + (5.6 - 0.705)^2}$ ----- 35= _____

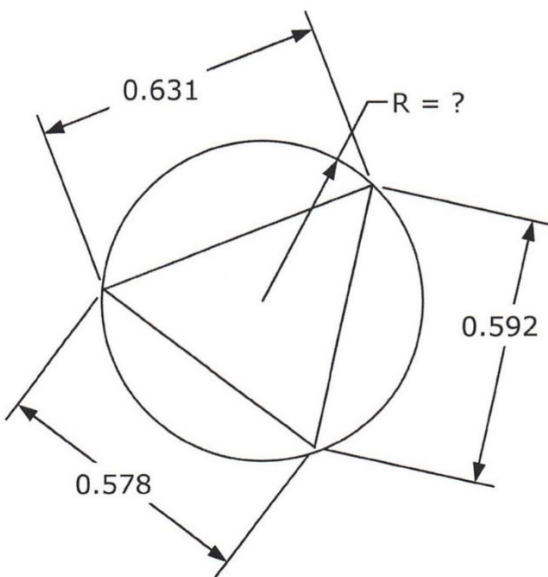
24F-36. In a room full of people, 40% are men. One third of the women are blond. Of the blond women, one third have military experience. If 9 blond women have military experience, how many people are in the room? ----- 36= _____ integer

24F-37. What is the positive slope of the line passing through the point (2,10) that is tangent to the circle $x^2 + y^2 = 30$? ----- 37= _____

24F-38. Japanese high-speed trains travel at 190 mph. They require 5 min to accelerate to this speed from rest or to decelerate to rest from this speed. How long would it take to go from Tokyo to Osaka, a distance of 493 km? ---- 38= _____ hr

24F-39.

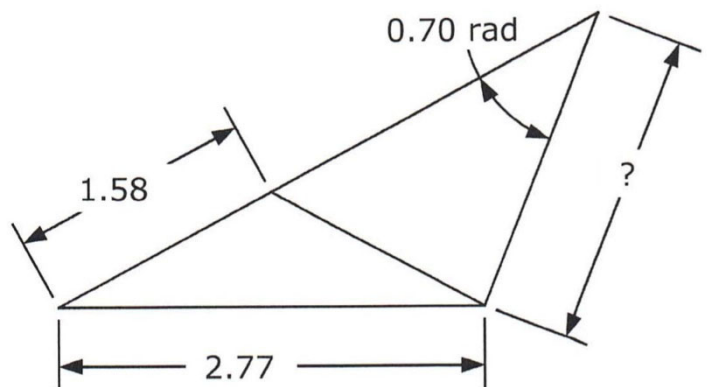
SCALENE TRIANGLE AND CIRCUMSCRIBED CIRCLE



24F-39 = _____

24F-40.

ISOSCELES AND SCALENE TRIANGLES



24F-40 = _____

24F-41. $(-93700)(-23800)10^{\{72300/26700\}}$ ----- 41= _____

24F-42. $\frac{(-50400)}{(9.51 \times 10^5)} [1 - e^{-(0.745)(0.592)}]$ ----- 42= _____

24F-43. $\frac{(0.00423)\text{Log}(0.0038 - 0.00309)}{(-0.00326)}$ ----- 43= _____

24F-44. $(0.0715 + 0.186)^{-(0.687 + 0.673)}$ ----- 44= _____

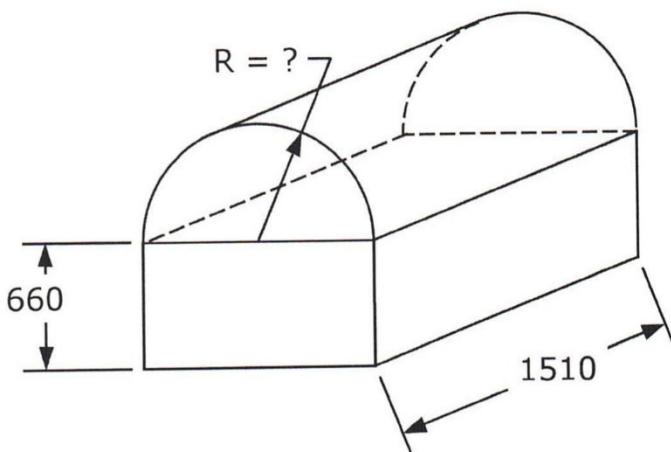
24F-45.(deg) $\sin \left[90^\circ \times \frac{(3.21)}{(4.38)} \right] + \cos \{127^\circ - 37.9^\circ\}$ ----- 45= _____

24F-46. A 12-in pillow requires 11 wads of stuffing. How many wads does a 30-in pillow need? ----- 46= _____ wads

24F-47. The growth of a beagle dog is measured based on its height and weight: (9 in, 9.5 lbs), (9.7 in, 11.25 lbs), (10.3 in, 13 lbs), (10.9 in, 15 lbs), (11.3 in, 16 lbs), and (12 in, 18.5 lbs). Estimate the weight of a full-grown beagle that stands 14 in tall. ----- 47= _____ lbs

24F-48. What is x if $x^5 = 3x^2 + 1$? ----- 48= _____

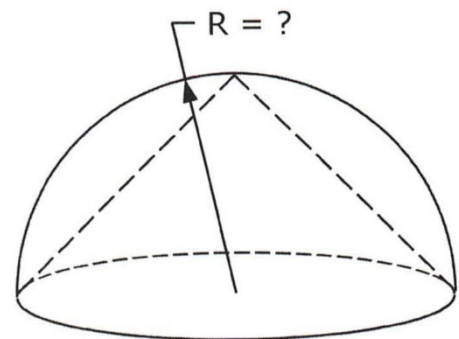
24F-49.
HALF CYLINDER PRISM AND RECTANGULAR SOLID



Total Volume = 2.10×10^9

24F-49 = _____

24F-50.
HEMISPHERE WITH CONICAL CAVITY



Total Surface Area = 0.475

24F-50 = _____

24F-51. $\frac{10^{(0.916)} \times 10^{-(0.47)} + 0.528}{10^{(5.59 + 0.886)}} \dots\dots\dots 51 = \underline{\hspace{2cm}}$

24F-52. $\frac{(-3.92 \times 10^{-5} - 4.25 \times 10^{-6}) e^{(0.838)(0.523)}}{e^{-(8.88 - 6.11)}} \dots\dots\dots 52 = \underline{\hspace{2cm}}$

24F-53. $\frac{\text{Ln}\{(4.13 \times 10^5)(4.82 \times 10^5)(9.34 \times 10^5)\}}{1.85 \times 10^5 + (22600) \text{Ln}(1.82 \times 10^5)} \dots\dots\dots 53 = \underline{\hspace{2cm}}$

24F-54. $\frac{(7.49)^{0.39} - (1.91)^{-0.309}}{3.54 \times 10^{-4} + 5.89 \times 10^{-5}} \dots\dots\dots 54 = \underline{\hspace{2cm}}$

24F-55.(rad) $\arctan\left[\frac{(4280)(0.324)}{(3.78)(73.1)}\right] + (0.36)(1.46) \dots\dots\dots 55 = \underline{\hspace{2cm}}$

24F-56. (rad) Solve for A if the area under the curve $y = A \sin(x)$ equals 6 for $0 < x < \pi$. $\dots\dots\dots 56 = \underline{\hspace{2cm}}$

24F-57. A car accelerates from rest. Its acceleration a increases according to $a = (5 \text{ ft/s}^3)t$. How far has the car traveled when its velocity reaches 100 mph? $\dots\dots\dots 57 = \underline{\hspace{2cm}}$ ft

24F-58. What is D_{11} if $\mathbf{D} = 3\mathbf{F} + 5\mathbf{N}$, $\mathbf{F} = \begin{bmatrix} -8 & 16 \\ 27 & -22 \end{bmatrix}$, and $\mathbf{N} = \begin{bmatrix} 13 & -8 \\ 26 & 14 \end{bmatrix}$? $\dots\dots\dots 58 = \underline{\hspace{2cm}}$

24F-59. SOLID OF REVOLUTION ($y = 0$)

Volume = ?

24F-59 = $\underline{\hspace{2cm}}$

24F-60. THREE IDENTICAL CIRCLES AND SMALL TANGENT CIRCLE

24F-60 = $\underline{\hspace{2cm}}$

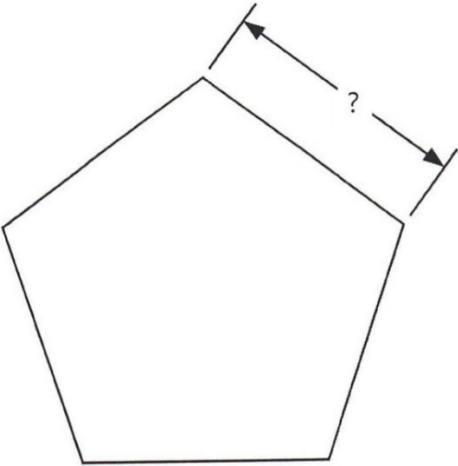
24F-61. The tensile failure load of a rod is proportional to the rod's cross-sectional area. A 0.25 in diameter steel rod may be loaded in tension by a force equal to 1400 lb before it fails. It is loaded to 650 lb and placed in a corrosive environment. The surface is lost at a rate of 0.002 in/hr. How long is the loaded rod in the corrosive environment before it fails? ----- 61= _____ hr

24F-62. Calculate $(378,856^{14})^{151}$. ----- 62= _____

24F-63. A smoke bomb has a fuse that burns at 0.7 in/s. Hank lights the fuse and immediately throws it with a release velocity of 45 mph and release angle of 65° relative to the ground. If the smoke bomb activates 2 s after hitting the ground, how long should the fuse be? The initial and final elevations are equal. ----- 63= _____ in

24F-64.

REGULAR PENTAGON

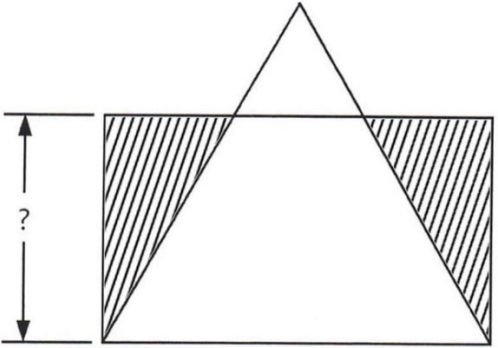


Area = 117

24F-64 = _____

24F-65.

RECTANGLE AND EQUILATERAL TRIANGLE



Hatched Area = $\frac{\text{Isosceles Trapezoidal Area}}{2} = 3.39$

24F-65 = _____

24F-66. $\frac{(10^{1.89})(10^{5.96})(10^{0.314})}{10\{(8.25)(0.335)\}}$ ----- 66= _____

24F-67. (rad) $\sin(4.3)\cos(3.32) - \cos(4.3)\sin(3.32)$ ----- 67= _____

24F-68. (deg) $\sqrt{1 + \left[\frac{\cos(133^\circ)}{\sin(133^\circ)}\right]^2} \times \frac{\cos(-62.6^\circ)}{\sin(-62.6^\circ)}$ ----- 68= _____

24F-69. $(0.64) - \frac{(0.64)^2}{2} + \frac{(0.64)^3}{3} - \frac{(0.64)^4}{4}$ ----- 69= _____

24F-70. $\frac{0.545}{\sqrt{0.138}} \ln \left[\frac{\sqrt{(0.244)^2 + (0.0426)} + \sqrt{0.0685}}{\sqrt{0.453 + (39.8)(0.00979)}} \right]$ ----- 70= _____