

1: $(-401 + 182) \times 0.265$ ----- 1=_____

2: $(-0.21 \times 856) - \pi + 92.4$ ----- 2=_____

3: $(-8.19 + 30.4 + 920) \times (2.57) - 438$ ----- 3=_____

4: $\frac{(6810)(8180 + 5800 + 72700)}{(-66800)(\pi)}$ ----- 4=_____

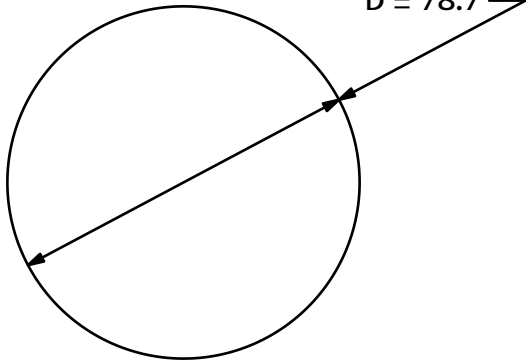
5: $\frac{(9.53 - 67)(-730)}{\{(767) / (-86.6)\}}$ ----- 5=_____

6: What is the average of π , one-third of ten, and the square root of two? ----- 6=_____

7: How many multiples of 6 are there between 1 and 1000? ----- 7=_____ (integer)

8: A baker made 42 boxes of cookies. Each box contains a dozen cookies and each cookie contains 8 chocolate chips. An 8 oz bag of chocolate chips contains 288 chips. What is the total amount of chocolate chips used? ----- 8=_____ oz

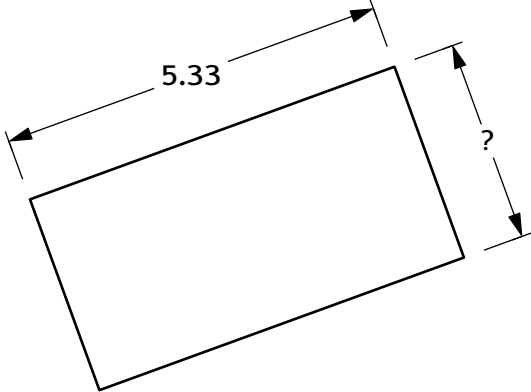
9. CIRCLE



Area = ?

9. _____

10. RECTANGLE



Perimeter = 16.2

10. _____

11: $\frac{(0.565)(-0.691) + (0.414)(-0.736)}{\{0.276 - 0.0468\} - (\pi)(-0.0896)}$ ----- 11=_____

12: $\frac{\{2.9 \times 10^9 - (-7660)(-340)(33.5)\}}{(72.2 - 122)(-308)(80.2 + 6750)}$ ----- 12=_____

13: $\frac{\{-1.52 \times 10^{-3} + (-0.242)(0.547)(0.478)\}}{(7.94 - 0.904)(-0.00668)(39.5 + 0.844)}$ ----- 13=_____

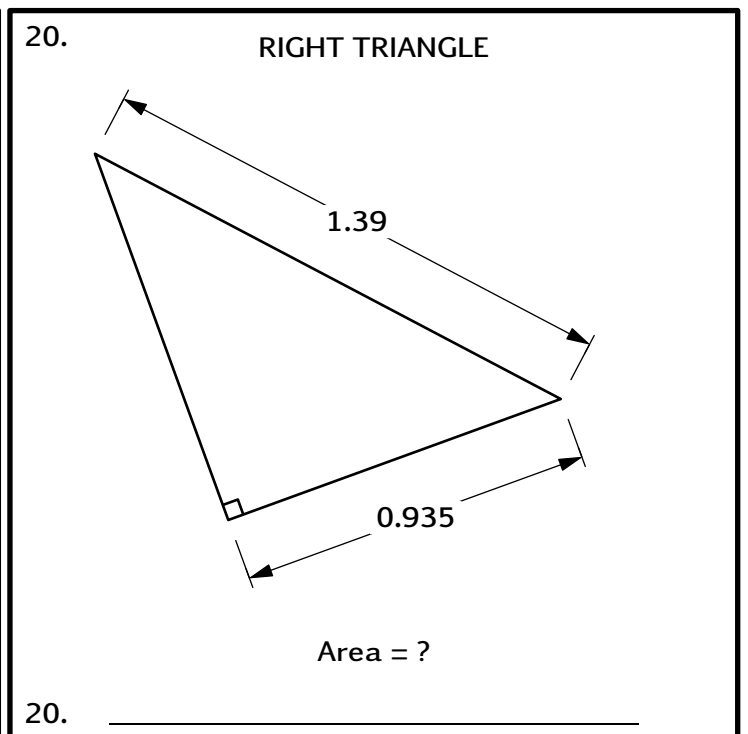
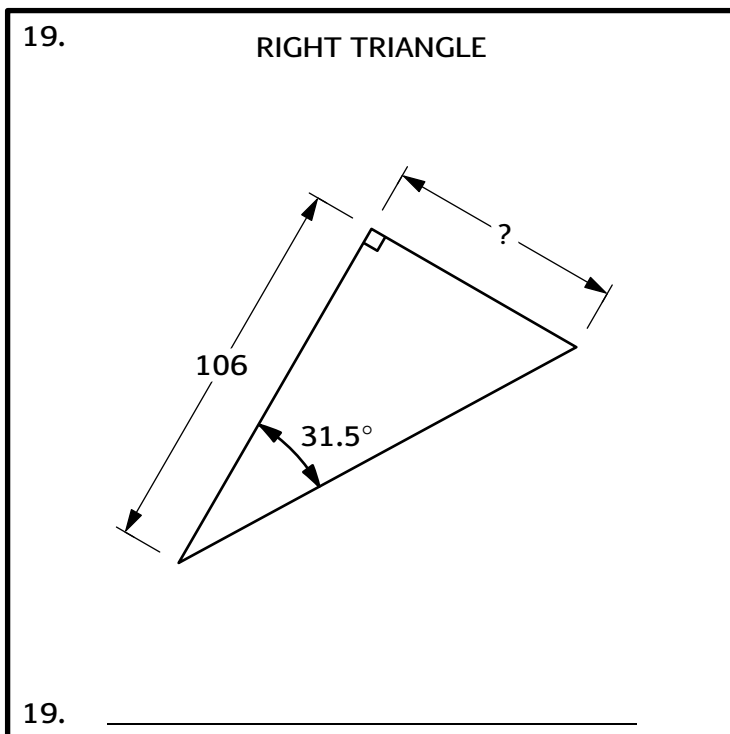
14: $\frac{-412}{-1.97} - \frac{30400 + 906 - 93800}{\pi + \pi} - \frac{(-82200 + 3830)}{\{(-829) / (5.56)\}}$ ----- 14=_____

15: $\frac{(383 - 146 - 983 - 72.8)(366 - 432)}{(10.9)(839)(1240)(6900 + 543)}$ ----- 15=_____

16: The population of Houston was 2.196 million in 2013 and 2.2396 million in 2016. What is the average annual increase in population? ----- 16=_____ million(SD)

17: The density of wood from an ash tree is 0.638 g/cm^3 . What is the height of a 12-cm square-based block of ash that weighs 0.342 kg? ----- 17=_____ cm

18: A space shuttle is orbiting the earth at an altitude of 100 miles above the earth's equator and makes one rotation every 90 minutes. How fast is the shuttle traveling? ----- 18=_____ ft/s



21: $\frac{0.455 - 1/(-27.6)}{1/(-0.0376) + 86} + \frac{1}{(32.7)}$ ----- 21=_____

22: $\sqrt{\frac{(0.00454)(0.0693)}{0.0747 - 0.00245}} - 0.062$ ----- 22=_____

23: $\left[\frac{-0.043 + 0.0614 + \sqrt{0.00628 / 0.0083}}{0.365 - 0.0707} \right]^2$ ----- 23=_____

24: $(4.32)(-1.02)\sqrt{(600)^2 / 8150} - 1/\sqrt{0.297 + 0.853}$ ----- 24=_____

25: $[8.34 + \sqrt{2.08}]^2 \times [9.18 + 0.607]^2 \times \sqrt{195000 / 8510}$ ----- 25=_____

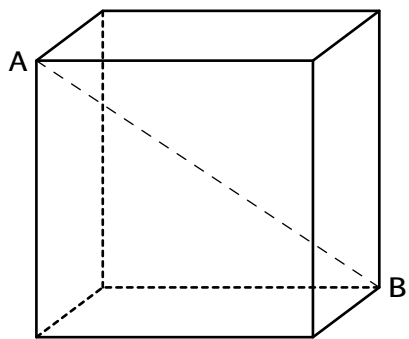
26: A tool manufacturer gives its customers a discount if they buy in bulk. When 60 boxes of screws are purchased, the cost is \$3.45 per box. When 100 boxes are purchased, the cost is lowered to \$2.93 per box. Assuming the discount is linear in the number of boxes purchased, how many boxes should be sold to achieve maximum revenue? ----- 26=_____

27: A motorcycle accelerates from rest to 50 mph in 8.4 s. How far down the road does the motorcycle travel? ----- 27=_____ ft

28: A company installs a 40-ft tall tower for local communication. A guy wire will be secured from the top of the tower to a point on the ground 32 feet from the base of the tower. How long is wire? ----- 28=_____ ft

29. CUBE

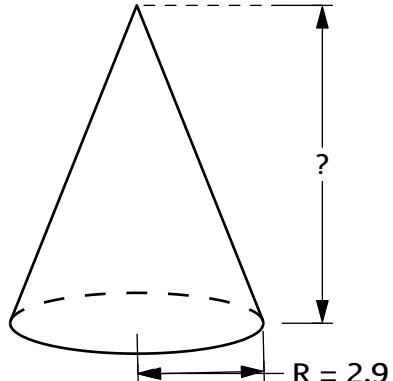
AB = 5.64



Volume = ?

29. _____

30. CONE



Total Surface Area = 97.8

30. _____

31: $\frac{(6.32 \times 10^{-3} - 7.36 \times 10^{-4})^2}{\sqrt{15.8 + 7940}} - \frac{7.33 \times 10^{-6}}{\sqrt{2740 - 92.7}}$ ----- 31=_____

32: $\sqrt{\frac{\sqrt{0.0356}}{0.885 + 0.00546}} \times \left[\frac{1}{(0.00528 - 0.0547)^2} + \frac{1}{(0.00755 + 0.0024)^2} \right]$ ---- 32=_____

33: $\frac{(6.12 \times 10^9)^2(6.39 \times 10^{-12} - 8.46 \times 10^{-10})}{9.7 \times 10^8 - (657000)(26800)} + \frac{1}{\frac{1}{5.45} + \frac{1}{89.8}}$ ----- 33=_____

34: $\frac{\sqrt{(\pi) / \{(0.0818) / \sqrt{65.7}\}}}{1.96 + (-2.24)(3.27)} - \{8.71 + 3.66\}^2$ ----- 34=_____

35: $\frac{\frac{1}{45.9} + \frac{-9.09}{(2.04 + 4.09)^2} + \frac{\sqrt{1.96 \times 10^{-3}}}{(-6.4)^2}}{(731 - 51.1)^2 + (-9.18 \times 10^4)}$ ----- 35=_____

36: A 12% brine solution is mixed with a 7% brine solution in a 2 to 1 ratio, mostly using the 12% solution. Then, pure water is added to dilute the new solution down to 40 pints of 2% brine. How much water is needed? ----- 36=_____ pt

37: A row boat can be rowed at 4.2 ft/s. The rower wants to go straight across the river, a distance of 144 ft. However, the stream is flowing at 2.56 mph. How long will it take him to get across the river? ----- 37=_____ min

38: Sarah commits to practicing piano an additional 10% each day above the amount practiced the day before. Starting on January 1st, she practiced 10 min. On January 2nd, she practiced 11 min, etc. How much did she practice in January in total? ----- 38=_____ hr

39. RIGHT TRIANGLE AND CIRCLE

Circle Area = ?

39. _____

40. SCALENE TRIANGLES

40. _____

41: $\frac{10^{(3.81 + 0.299)}}{1.1 \times 10^2 + 4.32 \times 10^3}$ ----- 41= _____

42: $\frac{e^{0.557} + e^{2.16}}{(-0.498 - 0.377)}$ ----- 42= _____

43: $\frac{\text{Ln}(55200 - 17600 + 7.98 \times 10^4)}{(-7.94 \times 10^{-3})}$ ----- 43= _____

44: $(8680)^{0.205} - (2740 + 5370)^{0.315}$ ----- 44= _____

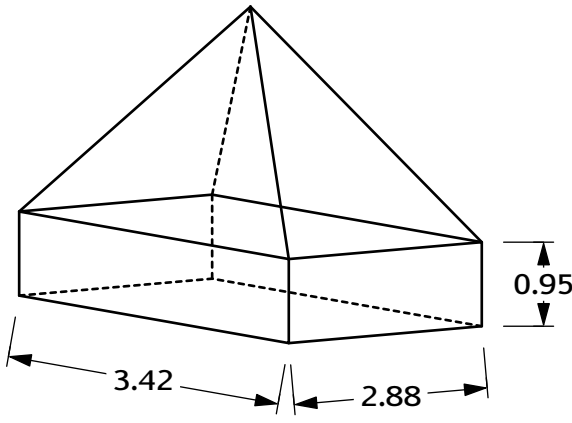
45: (deg) $\frac{\sin\{(153^\circ) / 3\}}{\tan\{272^\circ + 343^\circ\}}$ ----- 45= _____

46: A 5-ft Christmas tree used 9.6 ft of lights around the tree. How long is the string of lights used to cover a 7.2-ft tall tree? ----- 46= _____ ft

47: Michael’s basketball playing time is related to the number of points he scores: (3 min, 6 pt), (8 min, 11 pt), (13 min, 17 pt), (19 min, 22 pt), (21 min, 26 pt). How many minutes should he play to score 30 points? ----- 47= _____ min

48: (rad) Find J if $\frac{J}{2} + \sin(J) = \exp(-J) + 1$. ----- 48= _____

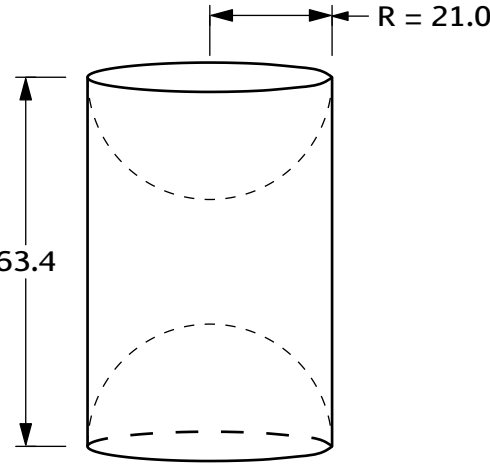
49. RECTANGULAR PRISM AND PYRAMID



Pyramid Volume = Prism Volume
Total Surface Area = ?

49. _____

50. CYLINDER WITH HEMISPHERIC CAVITIES



Volume = ?

50. _____

51: $10^{(0.375)} - 10^{(0.924)} + \left[10^{(0.394 / 0.29)} - 10^{(0.989)}\right]^{1/2}$ ----- 51=_____

52: $\frac{6.07 + e^{(0.6 + 0.632)}}{-2.97 + e^{-(0.553 - 0.806)}}$ ----- 52=_____

53: $\frac{(-9.23 \times 10^6 - 2350)\text{Log}[1/440000]}{\text{Log}[(36400) / (5640 + 993000)]}$ ----- 53=_____

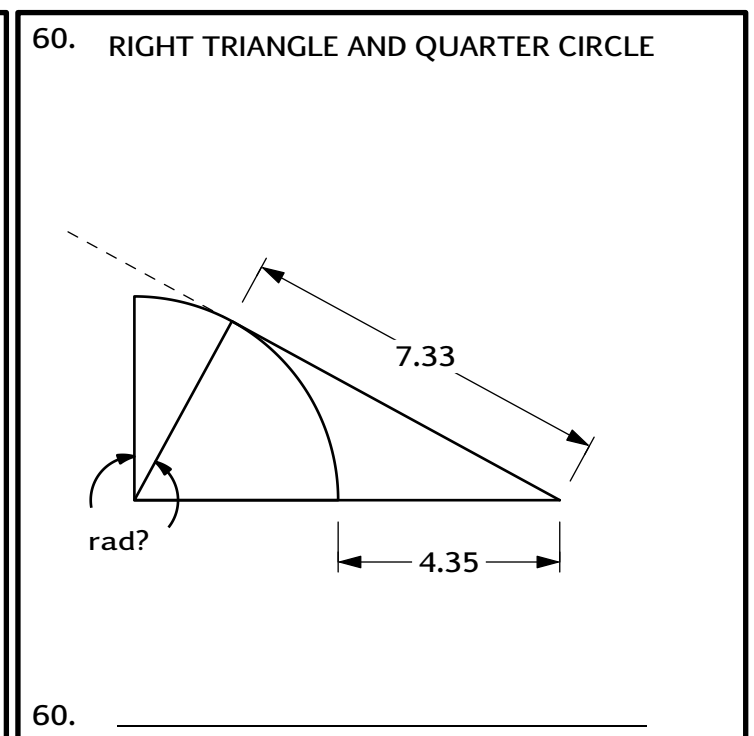
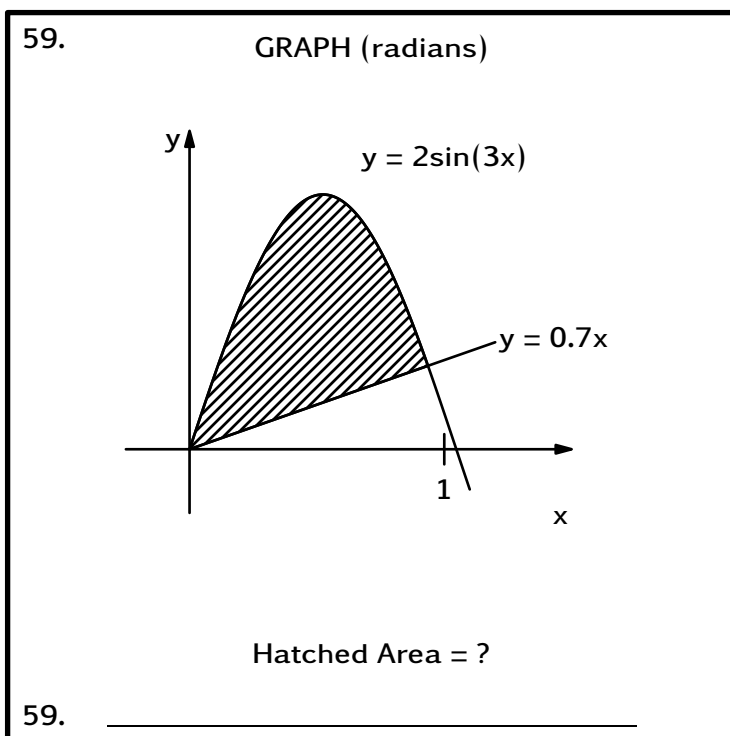
54: $\frac{(850 - 82.2)^{-0.37}}{(30.2)(4.13 - 0.867)}$ ----- 54=_____

55: (rad) $\arcsin\left[\frac{(51.4)(0.571)}{(0.492)(148)}\right] + (0.625)(0.584)$ ----- 55=_____

56: Find the rate of change in the function $f(x) = \frac{x+3}{x^2}$ at $x = 1.25$. ----- 56=_____

57: Two ants start at the same time from different corners along the same 6 ft long side of a 6 ft by 4 ft tabletop. They are both headed for their respective opposite corners. One travels at 0.24 ft/s; the other at 0.18 ft/s. How close are they when they reach their closest approach? ----- 57=_____ in

58: Solve for Q_{22} if $Q = 5P + 3R$, $P = \begin{bmatrix} 23 & 14 \\ 6 & -10 \end{bmatrix}$ and $R = \begin{bmatrix} 7 & -12 \\ 31 & 17 \end{bmatrix}$. ----- 58=_____



61: A machine contains two gears, radii 7 cm and 5 cm, whose centers are 18 cm apart. How long of a chain is needed to tightly fit around the gears? ----- 61=_____ cm

62: A game is played where the player must correctly guess an integer from 1 to 1728 (inclusive). What is the probability that the player can win this game 120 times in a row? ----- 62=_____

63: Carl tosses a football at 66 ft/s in an arc at an angle of 30° with the horizon from a release point 6 feet above ground. How far from Carl did the receiver catch the ball if it is caught at 4 ft above the ground? ----- 63=_____ yd

64. CIRCLE AND RIGHT TRIANGLES

AB = AC = Diameter = 0.284

64. _____

65. SQUARE

M = midpt

$\frac{\text{Shaded Area}}{\text{Square Area}} = ?$

65. _____

66: $\frac{(10^{1.14})(10^{2.63})(10^{0.819})}{(10^{0.904})(10^{0.346})}$ ----- 66=_____

67: (rad) $\sin(29)\cos(14.94) + \cos(29)\sin(14.94)$ ----- 67=_____

68: (rad) $\frac{-0.389}{0.425 + 75.1} [(2.46) + (0.348)\sin(0.33\pi)]^6$ ----- 68=_____

69: $1 - \frac{(0.605)^2}{2} + \frac{(0.605)^4}{24} - \frac{(0.605)^6}{720}$ ----- 69=_____

70: $\frac{0.925}{\sqrt{0.814}} \text{Ln} \left[\frac{\sqrt{(-0.507)^2 + (0.695)^2}}{\sqrt{2.74 - (-\pi)(9.62)}} \right]$ ----- 70=_____