

1. $(\pi \times 7.63) + 9.83$

1= _____

2. $(0.4 + 0.318) / (-0.47) + 1.92$

2= _____

3. $(11.3 - 7.92 + 12 + 8.12) \times (-3.11)$

3= _____

4. $\frac{(0.0612)(0.0532 - 0.0343 + 0.0788)}{(0.0872)(-0.0711)}$

4= _____

5. $\frac{\{(-0.0387 + 0.0676) / (0.038 + 0.187)\}}{\{(0.0349)(0.837) / (-0.00381)\}}$

5= _____

6. What is the average of 87.3, 98.2, and 19.5?

6= _____

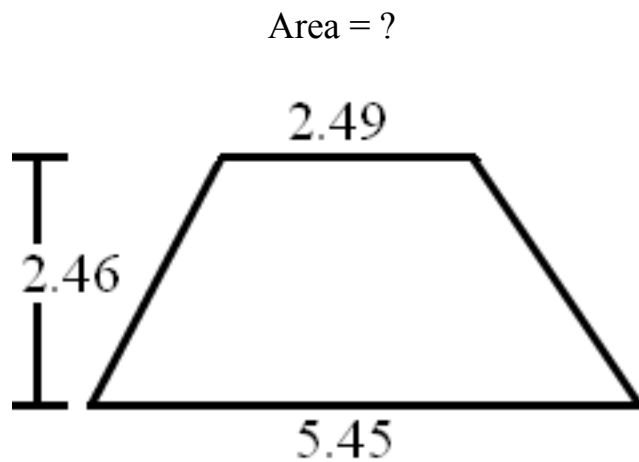
7. The sum of three consecutive even integers is 1,475,616. What is the largest of these integers?

7= _____ integer

8. A 6' x 10' x 12' rectangular tank can hold how many gallons of water?

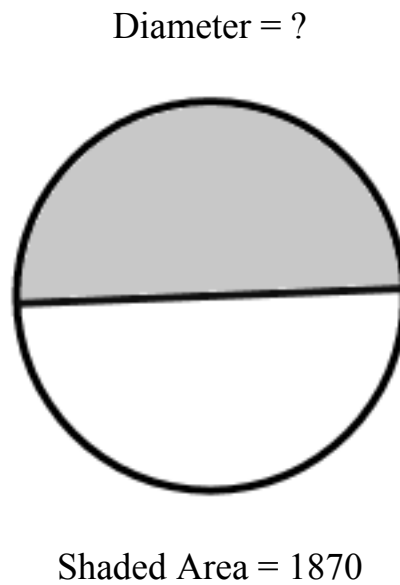
8= _____ gallons

9. TRAPEZOID



9= _____

10. CIRCLE



10= _____

11. $\frac{(87300 + 7300)}{(0.373 - 7.83)} + \frac{(-1450 + 1890)}{(7.20 - \pi)}$ 11= _____

12. $\frac{827 + 712 + 980}{(0.387)(2.57)(-4.58 \times 10^{-3})} + (712 + 938)(893 - 818)$ 12= _____

13. $\frac{(-3.28 \times 10^{-4} - 8.33 \times 10^{-3})\{(-1.89 + 8.32) + (3.2)(2780)\}}{(7.23)(-0.383 + 0.89)(1.89 + 7.33)}$ 13= _____

14. $\frac{-18200}{121.3} + \frac{780 + 378 - 320}{0.789 + \pi} + \frac{(0.1 + 0.383)}{(-4.87 \times 10^{-5})/(19)}$ 14= _____

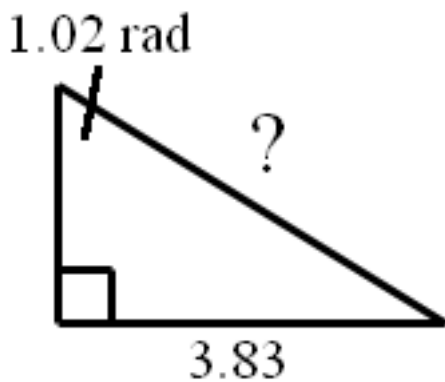
15. $\frac{(37800 + 19200 - 6790)(0.568 + 0.738 + 0.983)}{(5.67)(9.32)(-5.39)(8.33 + 12.4 + 23.8)}$ 15= _____

16. John's car gets 32 miles per gallon. If gas costs \$2.39 a gallon, how much would a 250 mile trip cost John? 16=\$ _____

17. Diane observes an electric bug zapper and determines it zaps, on average, 13.6 bugs per hour. If the zapper is left on for 8 hours each night for 30 consecutive nights, how many bugs will it zap during that time? 17= _____

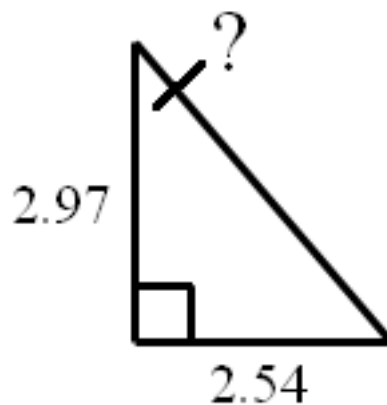
18. At 10:45am, 32,200 people are in their seats in a stadium. At 11:15am, 41,500 people are in their seats. Assuming the rate at which people take their seats is constant, how many people will be seated in the stadium at 12:10pm when the game starts? 18= _____ integer

19. RIGHT TRIANGLE



19= _____

20. RIGHT TRIANGLE



20= _____ (rad)

21. $\frac{\pi + 4 / (0.387)}{1 / (0.87) + 7.93} + \frac{1}{(0.453)}$ 21= _____

22. $\sqrt{\frac{(\pi)(0.893)}{390 + 233 + 971}} + 0.000345$ 22= _____

23. $(0.391)(8.39)\sqrt{(83.3)/(17.1)} + \{(0.385)(19.3)\}^2$ 23= _____

24. $(-19.3 + \sqrt{56.9})^2 \times (109 \times 0.045)^2 \times \sqrt{\pi \times 91.2}$ 24= _____

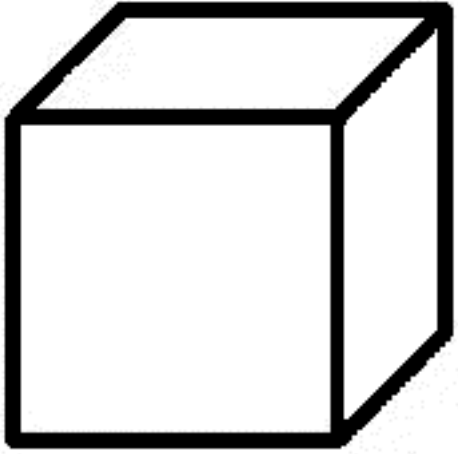
25. $\left[\frac{.781 + 1.33 + \sqrt{0.781 / 0.032}}{-38.9 + 3.39} \right]^2$ 25= _____

26. One year, a 250 lap stock car race is completed in 1 hour and 47 minutes. The next year, the same race is completed in 1 hour and 53 minutes. If the race track is .75 miles in length, what is the percent decrease between the average speed of the winning cars in the two years of the race? 26= _____ %

27. Nancy, who is a nurse, makes 12.5% more than her base pay rate if she works at night. Also, if she works on a weekend, she makes 7.5% more than her base pay rate. One week, Nancy works 24 night hours on the weekend, 12 more night hours during the week, and 12 “normal” hours. If Nancy’s pay for that week is \$2036.25, what is her per hour base pay rate? 27=\$ _____

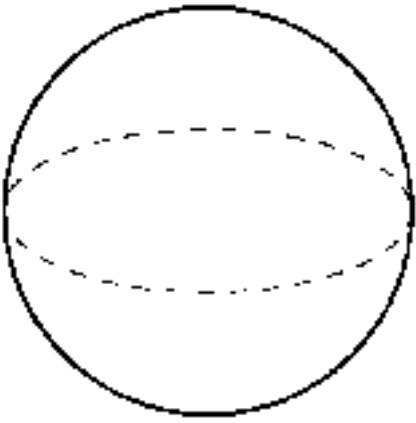
28. What is the distance between the intersection of the lines $4x + 3y = 12$ and $-2x + 4y = -10$ and the origin? 28= _____

29. CUBE
Surface Area = 19.3 Volume = ?



29= _____

30. SPHERE
Radius = 1.73 Surface Area = ?



30= _____

31. $\sqrt{\frac{3/(394-167)}{(230)(3.94+7.98)^2}} + (-6.42 \times 10^3)^2 (8.23 \times 10^{-12})$ 31= _____

32. $\sqrt{\frac{89.2}{\sqrt{78.3+107}}} \times \left[\frac{3}{(3.94+92.3)^2} + \frac{1}{(89.3+192)^2} \right]$ 32= _____

33. $\frac{(12.8 \times 10^3)^2 (9.31 \times 10^{-18} + 11.7 \times 10^{-18})}{8.31 + (-0.873)(67.2)} + \frac{2.3}{8.39} + \frac{3}{7.3}$ 33= _____

34. $\frac{12.4 \times 3.41 + \sqrt{1890}}{\sqrt{(8920)(0.398)^2}} + \frac{\sqrt{9830 \times 12.3}}{\sqrt{10900 \times 2.38}} + \sqrt{0.032 \times 102}$ 34= _____

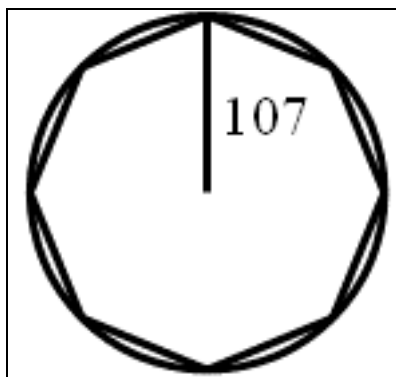
35. $\frac{(-0.00354 + 0.0383)^2 - (0.0038 - 0.0907)^2}{\sqrt{(101)(0.733)(102 + 329 - 2030)^2}}$ 35= _____

36. $7.32 + 7.32/12.7 + 7.32/12.7^2 + 7.32/12.7^3 + \dots = ?$ 36= _____

37. If $4.3x + 2.4y = -20.8$ and $10.3x + 2.7y = 2.94$, $x + y = ?$ 37= _____

38. Mercury is 4,878 km in diameter and weighs 3.3×10^{23} kg. Jupiter is 142,796 km in diameter and weighs 1.90×10^{27} kg. Pluto is 2,274 km in diameter and weighs 1.29×10^{22} kg. What is the density of the most dense of these three planets? 38= _____ kg/cubic km

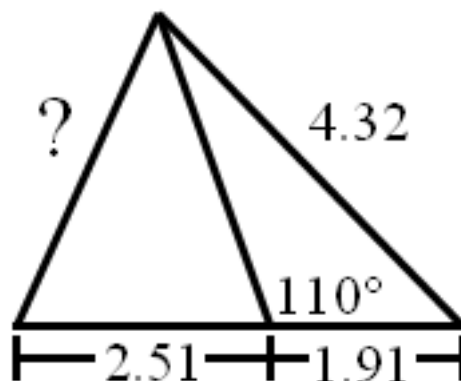
39. CIRCLE AND INSCRIBED REGULAR OCTAGON



Area between circle and octagon = ?

39= _____

40. SCALENE TRIANGLES



40= _____

41. $\frac{10^{-(0.576+\pi)}}{24.3 + 61.8}$

41= _____

42. $-1490e^{0.328} + 3870e^{-0.321} + \frac{1}{e^{-4.53}}$

42= _____

43. $\frac{(7.32 \times 10^3) \text{Log}(8.32 \times 10^4 - 9.32 \times 10^3)}{7.83 \times 10^4}$

43= _____

44. $(8.45)^{3.5} + (83 - 8.2)^{0.383} - 1$

44= _____

45. (deg) $\frac{\cos\{(83.7^\circ)/3.2\}}{\tan\{209^\circ - 74^\circ\}}$

45= _____

46. Big Ben's minute hand is 14 feet long. A scale model of Big Ben is 1/20 size. How far will the tip of the scale model's minute hand travel in a day?

46= _____ inches

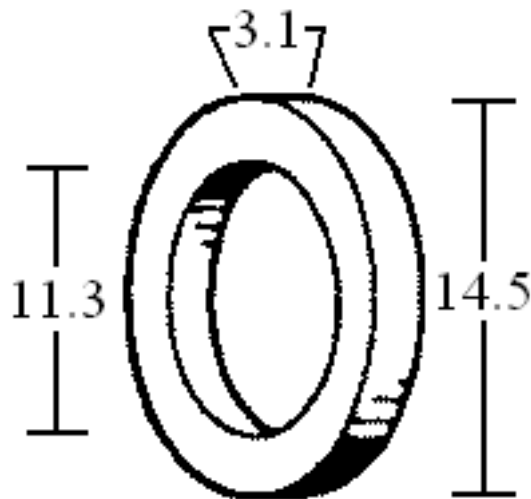
47. What is the slope of the best fit line through the data: (3.1,7.3), (4.7,9.3), (5.1,10.8), and (7.1,13.8)?

47= _____

48. Solve for x if $2x^3$ equals $\frac{1}{x-2}$.

48= _____

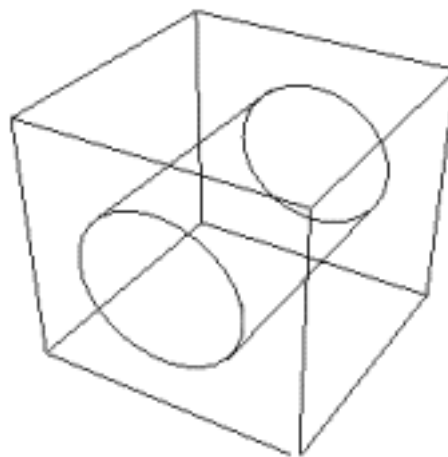
49. RING



Volume = ?

49= _____

50. CUBE WITH CYLINDAR HOLE



Cube
Edge =
17.5

Cyl.
Radius
= 4.13

Surface Area = ?

50= _____

51. $\frac{(-8.39 \times 10^3) 10^{-(8.33-4.8)}}{8.32 \times 10^8 + 7.39^8}$

51= _____

52. $\frac{\ln(7890 + 7630)}{12.9} + \frac{\ln(1200)}{982 - 509}$

52= _____

53. $\frac{(-8710 - 6730)e^{(0.78)(0.832)}}{e^{-(4.3)} + e^{-(8.8)}}$

53= _____

54. $\frac{(903 + 1170)^{-0.871}}{(7890)^{-(0.183+0.432)} + 129}$

54= _____

55. (rad) $\frac{\arccos\left\{\frac{(-9370)(4930)}{(-7.12 \times 10^7)}\right\}}{-6.38 \times 10^7 + (3870)(6730)/(783)}$

55= _____

56. What is the $\lim_{x \rightarrow 3} \frac{5x^2 - 6x + 12}{3\pi(x - 3)}$?

56= _____

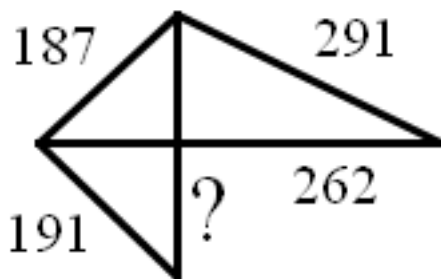
57. What is the slope of the line tangent to the curve $f(x) = 7.3x^3 + 2.1x^2 - 3.5x + 10.2$ at $x = 11.9$?

57= _____

58. What is the determinant of $\begin{bmatrix} -4.3 & 4 & 6.7 \\ 2 & -2.2 & -5 \\ 5.7 & 1.3 & 3 \end{bmatrix}$?

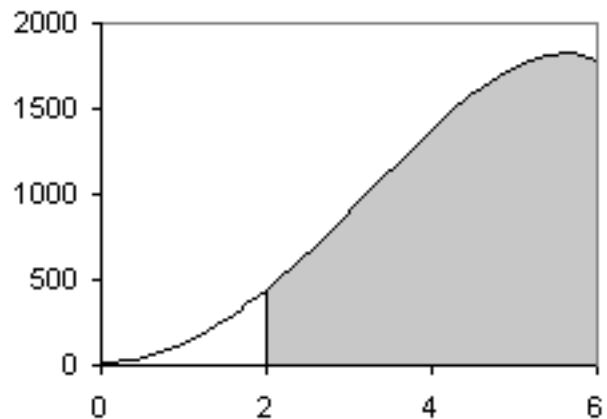
58= _____

59. RIGHT TRIANGLES



59= _____

60. $f(x) = 1.8x^4 + 114x^2 + 17$



Area of Shaded Region = ?

60= _____

61. $\text{Ln}\left[\frac{(7.32)(8.95)}{(8.35)(1.77)}\right]^3 + \text{Ln}\left[\frac{(7.32)}{(2.33)}\right]^3$ 61= _____

62. (rad) $\frac{\cos(0.832)}{\sin(0.453)}\sqrt{8 - \{\tan(0.331 \times 11.3)\}^2}$ 62= _____

63. (deg) $\tan(-39.3^\circ)\sin(38.7^\circ) + \cos(-39.2^\circ)\cos(67.4^\circ)$ 63= _____

64. $\frac{1}{(0.893)} + \frac{1}{3(0.388)^3} + \frac{1}{5(0.983)^5} + \frac{1}{7(0.839)^7}$ 64= _____

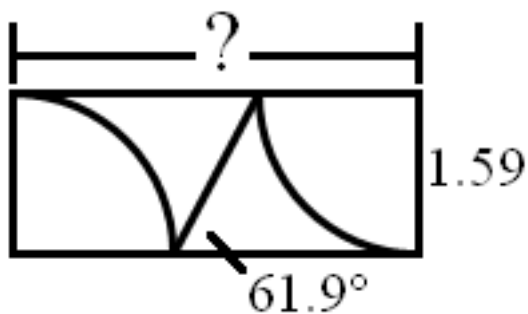
65. (rad) $\frac{(3.98)(-0.38) - \text{Ln}\{(0.833) + (12.9)e^{(-4.36)}\}}{\arccos\{(33.9)/(37.3 - 92.3)\}}$ 65= _____

66. One teaspoon of liquid sweetener is added to make one 12 oz. glass of sweetened tea. How much sweetener is needed to sweeten 8 gallons of unsweetened tea? 66= _____ cup

67. If you multiply the integers, 1, 2, 3, 4, 5, ..., what is the final integer that gives a product under four million? 67= _____

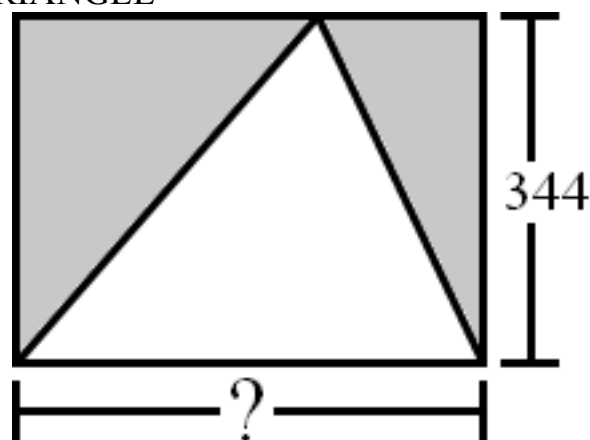
68. The life expectancy for men is 72.5 years and for women is 78.4. If the total average is 75.8 years, what is the number of women divided by the number of men? 68= _____

69. RECTANGLE, QUARTER CIRCLES



69= _____

70. RECTANGLE, SCALENE TRIANGLE



Shaded Area = 7.96×10^4

70= _____