PSIA
Private Schools
Interscholastic
Association

TEST PACKET

Calculator Applications

2022

District and State Tests

CONTESTANT ID #: _____

GRADE LEVEL :_____

Place Contestant ID label here AFTER grading.

PSIA

25 YEARS

Inspiring Student Achievement

Calculator Applications

District Contest

Grades 6-8

Grader #1 Score: _____

Grader #2 Score: _____

Grader #3 Score: _____

FINAL SCORE: _____

2022

(Please do not open test until the signal is given to begin.)

PSIA – Calculator Applications
District Test – 2022

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1: 175 + 127 + 564 ---------- 1=_____

2: 121 + 297 + 347 ---------- 2=_____

3: 185 + 820 – 134 ---------- 3=_____

4: 871 + 147 – 698 + 976 ---------- 4=_____

5: 900 + 248 + 996 + 413 ---------- 5=_____

6: 0.00739 + 0.0119 – 0.00813 ---------- 6=_____

7: 250 – 84.5 + 906 ---------- 7=_____

8: 1160 + 6910 – 963 – 673 ---------- 8=_____

9: 0.5 × 5.86 / 6.04 ---------- 9=_____

10: 960 × 0.853 × 0.72 / 0.21 ---------- 10=_____

11: Calculate the product of two-fifths, pi squared, and the square root of eighty-eight. ---------- 11=_____

12: Annabella rode her skateboard a distance of 46.8 feet in 9.7 seconds. What was her average speed? ---------- 12=_____ ft/s

13: Juliet has three five-dollar bills and six quarters. Desdemona has nine one-dollar bills and fourteen dimes. How much less does Desdemona have than Juliet? ---------- 13=$ _____

14: $(45.3 \times 5.15) + (0.352 \times 9.64)$ ---------- 14=_____

15: $(8.85 \times 8.34) - (5.66 \times 6)$ ---------- 15=_____

16: $(835 - 69.9 - 85.3) - (33.2 \times 76.9)$ ---------- 16=_____

17: $[0.564 + 0.763 - 0.0896] \times (0.0262 + 0.501)$ ---------- 17=_____

18: $(0.952 + 91.1) - (2.71 - 0.746) + (\pi - 0.916)$ ---------- 18=_____

19: $12.2 \times \left[\dfrac{78.1 + 1850}{5440 - 65.9}\right]$ ---------- 19=_____

20: $\dfrac{11800 + 852 + 344}{31700 + 47300} + \dfrac{6960}{88600}$ ---------- 20=_____

21: $\dfrac{(0.361 + 0.6)(0.235)}{0.575} + \dfrac{0.0349 - 0.00416}{0.996}$ ---------- 21=_____

22: $\dfrac{(0.0213)(0.0357)(0.181 - 0.0345)}{0.0697} - \dfrac{(0.0107 - 0.454)}{6.3 + 5.7}$ ---------- 22=_____

23: $\dfrac{(0.0654)(0.0528)(0.0948 - 0.0905)}{0.821} + \dfrac{(0.0856 - 0.0266)}{0.0662 + 0.0864}$ ---------- 23=_____

24: What positive number squared and then added to 5.36 is equal to 10? ----- 24=_____

25: A farmer built a rectangular pen for pigs that is 42 feet by 35.5 feet. How much fencing did he use to build this pen? ---------- 25=_____ ft

26: Gasoline costs $2.689 per gallon. Al's car gets 24.6 miles per gallon. How much will it cost him to drive 148 miles? ---------- 26=$ _____

27: $\left\{7.67\times10^{-3} + 4.07\times10^{-2}\right\} \times \dfrac{(6.6 - 43.7)}{(2.68 - 0.67)}$ ---------- 27=_____

28: $\left(7.83\times10^{3}\right) \times \left[\dfrac{-0.0189 + (0.545 - 0.751 + 0.00302)(0.337)}{(0.909)(0.899)(-0.834)}\right]$ ---------- 28=_____

29: $(0.445)(0.0047) + (0.445)(0.00814 + 0.718) + (0.445)(0.00803 - 0.00946)$ 29=_____

30: $\dfrac{1}{80.5} - \dfrac{1}{46.3} - \dfrac{1}{0.209}$ ---------- 30=_____

31: $\left(\dfrac{1}{0.276}\right)\left(\dfrac{1}{\pi}\right)\left(\dfrac{1}{3.66}\right) + \dfrac{90.5 - 5.92}{64.4}$ ---------- 31=_____

32: $\left[\dfrac{1/0.917}{0.0482 - 0.608 - 0.432}\right] - \left[\dfrac{0.0512 + \pi}{0.0898 / 3.05}\right]$ ---------- 32=_____

33: $\dfrac{1}{(1.06 + 96.2 + 992)} \times \left[\dfrac{(788)(42.9 + 6.12 - 8.41)}{(-23.7)(684 + 96.6 - 74.2)}\right]$ ---------- 33=_____

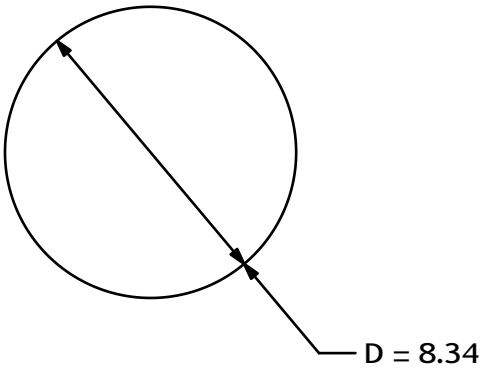
34: $\dfrac{1}{1/(-0.291)}(6.31 + 0.0132) + \left\{3.65\times10^{1}\right\}$ ---------- 34=_____

35: A company estimated 18,300 toaster sales for the previous month. They actually sold 20,140 toasters. What is the percent error in the sales estimate? ---- 35=_____ %

36: Emerald had scored 84, 99, 92, and 94 on her first four quizzes. After her fifth quiz, her average was 93. What did she make on the fifth quiz? ---------- 36=_____ (integer)

37.

CIRCLE

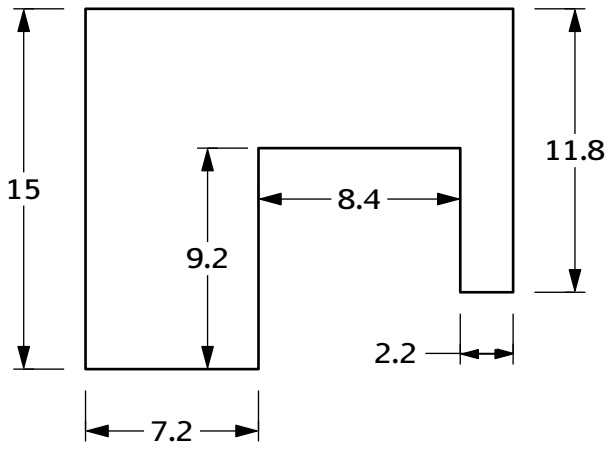


Circumference = ?

37. _____

38.

POLYGON
(All Angles are Right Angles)



Area = ?

38. _____

39: $(-0.0377 + 0.673 + 0.708)^2 + (2.55 + 5.25)$ ---------- 39=_____

40: $\left(\frac{-2880}{-21300}\right)^2 / \left(\frac{954}{-98000}\right)^2 + (9430 + 133)$ ---------- 40=_____

41: $\sqrt{0.00722 + 0.0487 - 0.005 + 0.235}$ ---------- 41=_____

42: $\frac{\sqrt{418 + 7.97}}{7.89} + \frac{\sqrt{91.6 - 85.8}}{7.89} + \frac{\sqrt{4.76}}{7.89}$ ---------- 42=_____

43: $\frac{(63.2)\left(\sqrt{86.7 - 5.49}\right)}{\sqrt{5.99}} + \left[\frac{(-0.182)(-64.1)}{\left\{7.19 \times 10^{-2}\right\}}\right]$ ---------- 43=_____

44: $\frac{(-0.0205 + 7.52 + 6.89)^2}{\pi} + \frac{0.0751 - 5.22}{(-4.34 - 0.0894 - 7.76)^2}$ ---------- 44=_____

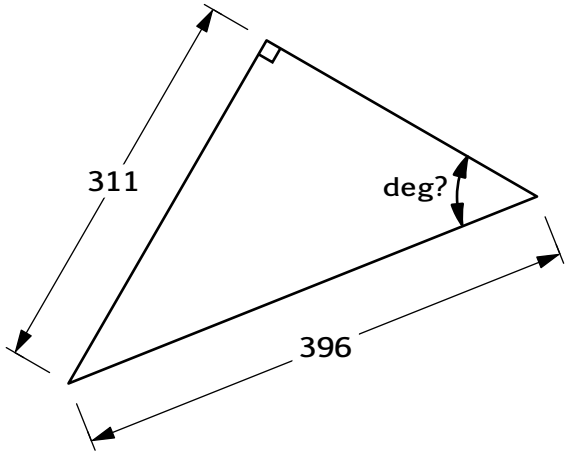
45: $\frac{(1/0.13)^2}{0.823 + 0.847 - \sqrt{70.2}} \times [(0.651)(18.6 + 80.5)]$ ---------- 45=_____

46: $\frac{1}{\sqrt{12.4 - 74.7 + 66.2}} - \sqrt{\frac{\left(2.48 \times 10^{-5}\right) + \left(6.25 \times 10^{-6}\right)}{\left(1.29 \times 10^{-6}\right)}}$ ---------- 46=_____

47: The ratio of boys to girls at camp was 12 to 7. The camp had a total of 324 boys. How many girls were there? ---------- 47=_____ (integer)

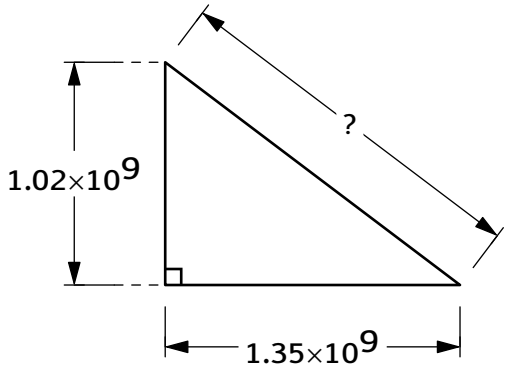
48: A paper cone has a diameter of 3 inches and height of 4 inches. How much ice is needed to make a full snowcone, including the hemispheric top? ---------- 48=_____ in^3

49. RIGHT TRIANGLE



49. _____

50. RIGHT TRIANGLE



50. _____

51: $2\frac{6}{7} + 7\frac{1}{8} + 5\frac{5}{7}$ ---------- 51=_____

52: $(0.418 - 0.96 - 0.605)^3 - (3.49 + 1.64)$ ---------- 52=_____

53: $(0.573)^3 \times \left(\frac{1}{(0.573)}\right)^2 \times \left[\frac{755 - 364}{0.573}\right]$ ---------- 53=_____

54: $[(0.745) + (4.28)(0.362)]^{1/3} + (4.14)$ ---------- 54=_____

55: $\sqrt[3]{\left(9.96 \times 10^8\right) - \left(3.89 \times 10^8\right)} \times \frac{17.3 + 76.3}{5.46}$ ---------- 55=_____

56: $\frac{(4090 - 8660)(621 - 5110)}{(2160 + 8940 - 226)(-158 + 5860)} - (74.5)^{0.509}$ ---------- 56=_____

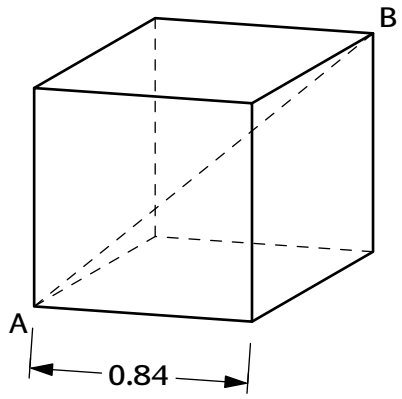
57: $\left[\sqrt{\frac{71.7 - 7.05}{39.8 - 2.91}}\right]^2 + \frac{91.5}{51.9}$ ---------- 57=_____

58: $(4.29)^{0.854} \times (51.6 + 204)^{0.854} - (41.6 + 40.8)$ ---------- 58=_____

59: Calculate $(59706)^{17946}$. ---------- 59=_____

60: A new app had 75,000 total downloads in 3 months after its release and 120,000 total downloads 6 months after its release. Assuming the number of downloads varies linearly with time, how many total downloads will the app have 14 months after release? ---------- 60=_____

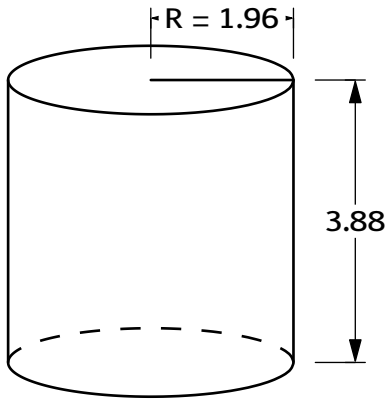
61. CUBE



AB = ?

61. _____

62. RIGHT CIRCULAR CYLINDER



Volume = ?

62. _____

63: $10^{(2.89)} - 10^{(1.91)} + \sqrt{709}$ ---------- 63=_____

64: $e^{0.783} \times \sqrt{(1.54)(0.214)} - \dfrac{1}{\left\{5.17 \times 10^{-3}\right\}}$ ---------- 64=_____

65: $\left(\dfrac{0.0541}{0.093}\right)^{0.918} - \sqrt{\dfrac{0.972 - 0.0309}{1.94}}$ ---------- 65=_____

66: (deg) $[\tan(203°) - \sin(295°)] \times 779$ ---------- 66=_____

67: (deg) $\cos(102° + 74°) - \cos(44°)$ ---------- 67=_____

68: (rad) $\dfrac{21.2[\tan(0.13 + 3.46)]}{\tan(3.3 + 4.81) + 0.71}$ ---------- 68=_____

69: (rad) $\left[\sin^2(0.72) + \cos^2(0.72)\right] + (0.29)(0.966)$ ---------- 69=_____

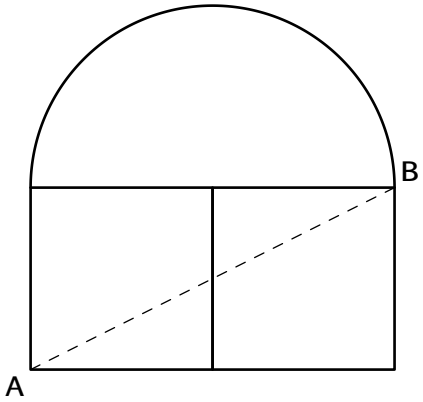
70: $\left(\dfrac{e^{0.119} \times e^{0.721} \times e^{0.738}}{e^{0.53}}\right)^{1/8}$ ---------- 70=_____

71: A class has 22 students. How many ways can the coach split the class into two teams of 11 players each to play dodgeball? ---------- 71=_____ (integer)

72: A car wash charges $7.00 for basic wash and $9.00 for a premium wash. On Monday, they washed 654 cars for a total of $5130.00. How many cars ordered the premium wash? ---------- 72=_____ (integer)

73. SEMICIRCLE AND CONGRUENT SQUARES

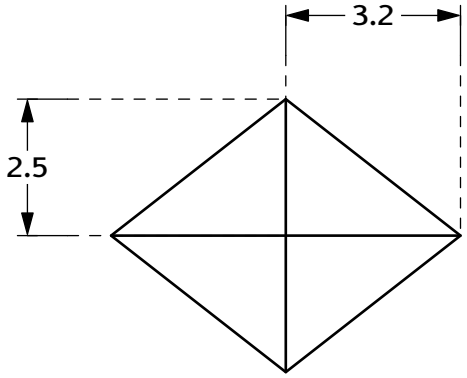
AB = 6.4



Total Area = ?

73. _____

74. RHOMBUS



Area = ?

74. _____

75: (rad) $\dfrac{\tan(2.32) - \tan(0.62)}{1 + \tan(2.32)\tan(0.62)}$ ---------- 75=_____

76: $\text{Log}[4710 + 33100 + 722 - 8\pi]$ ---------- 76=_____

77: $\dfrac{\text{Ln}[10200 \times \pi \times 926]}{\text{Ln}[1040]} - \dfrac{\text{Ln}[66800 + 38800]}{\text{Ln}[7030]}$ ---------- 77=_____

78: $(0.325) - \dfrac{(0.325)^3}{6} + \dfrac{(0.325)^5}{120} - \dfrac{(0.325)^7}{5040}$ ---------- 78=_____

79: $\text{Log}\left[\dfrac{664 + 1030}{(4010)(257)}\right] + e^{\text{Ln}(76.4)}$ ---------- 79=_____

80: (deg) $\sqrt{[\sin(90° \times 1.1)]} - \left\{\dfrac{\sin(253°)}{\cos(253°)}\right\}$ ---------- 80=_____

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District Test – 2022
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ANSWERS

1=	866 8.66×10^{2}	14=	237 2.37×10^{2}	27=	−0.893 -8.93×10^{-1}
2=	765 7.65×10^{2}	15=	39.8 3.98×10^{1}	28=	1000 1.00×10^{3}
3=	871 8.71×10^{2}	16=	−1870 -1.87×10^{3}	29=	0.325 3.25×10^{-1}
4=	1300 1.30×10^{3}	17=	0.652 6.52×10^{-1}	30=	−4.79 -4.79×10^{0}
5=	2560 2.56×10^{3}	18=	92.3 9.23×10^{1}	31=	1.63 1.63×10^{0}
6=	0.0112 1.12×10^{-2}	19=	4.38 4.38×10^{0}	32=	−110 -1.10×10^{2}
7=	1070 1.07×10^{3}	20=	0.243 2.43×10^{-1}	33=	−0.00175 -1.75×10^{-3}
8=	6430 6.43×10^{3}	21=	0.424 4.24×10^{-1}	34=	34.7 3.47×10^{1}
9=	0.485 4.85×10^{-1}	22=	0.0385 3.85×10^{-2}	35=	10.1 1.01×10^{1}
10=	2810 2.81×10^{3}	23=	0.387 3.87×10^{-1}	36=	96 (integer)
11=	37.0 3.70×10^{1}	24=	2.15 2.15×10^{0}	37=	26.2 2.62×10^{1}
12=	4.82 4.82×10^{0}	25=	155 1.55×10^{2}	38=	183 1.83×10^{2}
13=	$ 6.10	26=	$ 16.18		

39= 9.60
9.60×10^{0}

40= 9760
9.76×10^{3}

41= 0.535
5.35×10^{-1}

42= 3.20
3.20×10^{0}

43= 395
3.95×10^{2}

44= 65.9
6.59×10^{1}

45= −569
-5.69×10^{2}

46= −4.40
-4.40×10^{0}

47= 189 (integer)

48= 237
2.37×10^{2}

49= 51.8
5.18×10^{1}

50= 1.69×10^{9}

51= 15.7
1.57×10^{1}

52= −6.64
-6.64×10^{0}

53= 391
3.91×10^{2}

54= 5.46
5.46×10^{0}

55= 14500
1.45×10^{4}

56= −8.64
-8.64×10^{0}

57= 3.52
3.52×10^{0}

58= 312
3.12×10^{2}

59= 2.62×10^{85710}

60= 240000
2.40×10^{5}

61= 1.45
1.45×10^{0}

62= 46.8
4.68×10^{1}

63= 722
7.22×10^{2}

64= −192
-1.92×10^{2}

65= −0.0883
-8.83×10^{-2}

66= 1040
1.04×10^{3}

67= −1.72
-1.72×10^{0}

68= −3.28
-3.28×10^{0}

69= 1.28
1.28×10^{0}

70= 1.14
1.14×10^{0}

71= 705432 (integer)

72= 276 (integer)

73= 29.3
2.93×10^{1}

74= 16.0
1.60×10^{1}

75= −7.70
-7.70×10^{0}

76= 4.59
4.59×10^{0}

77= 1.17
1.17×10^{0}

78= 0.319
3.19×10^{-1}

79= 73.6
7.36×10^{1}

80= −2.28
-2.28×10^{0}

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GRADE LEVEL :_____

Place Contestant ID label here AFTER grading.

PSIA

25 YEARS

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Calculator Applications

State Contest

Grades 6-8

Grader #1 Score: _____

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FINAL SCORE: _____

2022

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State Test – 2022

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1: 833 + 526 + 247 ---------- 1=_____

2: 223 + 521 + 628 ---------- 2=_____

3: 169 + 702 – 826 ---------- 3=_____

4: 997 + 369 + 655 + 790 ---------- 4=_____

5: 219 + 905 – 620 + 548 ---------- 5=_____

6: 87.7 – 10.7 + 155 ---------- 6=_____

7: 38.1 – 1.49 + 5.58 ---------- 7=_____

8: 306 – 31900 + 6740 + 80400 ---------- 8=_____

9: 4.11 × 3.11 / 5.69 ---------- 9=_____

10: 448 × 0.313 × 0.614 / 0.631 ---------- 10=_____

11: Calculate the sum of the square root of seventeen and one-third of five-sixteenths. ---------- 11=_____

12: How far does a car travel in 2 hours 12 minutes at an average speed of 48 miles per hour? ---------- 12=_____ miles

13: Zach scored 74, 78, 79, and 89 on his first four homework assignments. He wants an overall average of 85. He has four more assignments to turn in. What should he average on the remaining assignments to reach his goal? ---------- 13=_____ (integer)

14: $(0.0909 - 0.0106) - (-0.421 - 6.46)$ ---------- 14=_____

15: $(5.06 \times 9.24) + (802 \times 3.92)$ ---------- 15=_____

16: $(123 + 202 + 230) - (88 \times 9.19)$ ---------- 16=_____

17: $(53.4 + 28.2)(-49.2 + 12.1) - (5.11)$ ---------- 17=_____

18: $(69.9 + 75.6) - (8.07 - 4.39) - (0.12 - 77.6)$ ---------- 18=_____

19: $\dfrac{-90.5 - 463}{98.4} + \dfrac{849 - 138}{8.97}$ ---------- 19=_____

20: $\dfrac{0.0352 - 0.0603 + 0.547}{0.986 + 0.00311} + \dfrac{0.00674}{0.0772}$ ---------- 20=_____

21: $\dfrac{(22.6 + 1.09)(7.6)}{18.8} - \dfrac{65.8 - 75.3}{19.5}$ ---------- 21=_____

22: $\dfrac{(0.00449)(0.00866)(0.0407 + 0.41)}{0.00449} - \dfrac{(0.118 - 0.00152)}{0.00684 - 0.576}$ ---------- 22=_____

23: $\dfrac{(62)(42.6)(\pi - 0.869)}{392} + \dfrac{(1770 - 82.3)}{130 + 80.5}$ ---------- 23=_____

24: What number cubed and then added to 17.3 equals 40? ---------- 24=_____

25: A dime is 1.52 mm thick. How tall is a single stack of dimes worth $17.60? - 25=_____ ft

26: A piano has 88 total keys: 52 white and 36 black. What percent of the keys are black? ---------- 26=_____ %

27: $\left\{5.14\times10^{1} + 4.17\times10^{0}\right\} \times \dfrac{(1.84 - 0.0369)}{(0.0124 + 2.9)}$ ---------- 27=_____

28: $\left(2.48\times10^{-2}\right) \times \left[\dfrac{-0.744 - (\pi + 0.632 + 7.32)(0.0221)}{(5.73)(-0.0984)(0.773)}\right]$ ---------- 28=_____

29: $(0.0886)(0.0298) + (0.0886)(9.2 - 4.34) + (0.0886)(8.44 - 4.45)$ ------ 29=_____

30: $\dfrac{1}{64.7} + \dfrac{1}{0.721} + \dfrac{1}{0.57}$ ---------- 30=_____

31: $\left(\dfrac{1}{6390}\right)\left(\dfrac{1}{844}\right)\left(\dfrac{1}{33.4}\right) - \dfrac{19.6 - 331}{219}$ ---------- 31=_____

32: $\left[\dfrac{1/0.0524}{0.173 + 0.0837 + 0.00696}\right] + \left[\dfrac{-0.0502 + 0.00609}{0.00471 / 0.00188}\right]$ ---------- 32=_____

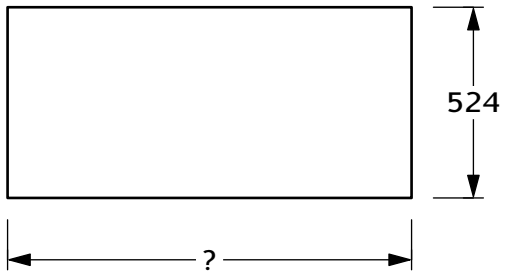
33: $\dfrac{1}{(90.8 + 61.2 - 4.21)} \times \left[\dfrac{(-30.4)(0.278 + 3.88 - 4.65)}{(-9.9)(\pi + 0.561 - 0.108)}\right]$ ---------- 33=_____

34: $\dfrac{1}{1/(0.689)}(0.137 + 12.6) - \left\{5.89\times10^{-1}\right\}$ ---------- 34=_____

35: East coast butter sticks are 1.25 inches by 1.25 inches by 5 inches. West coast butter sticks are 1.5 inches by 1.5 inches by 3.5 inches. What is the percent difference between the amounts of butter? ---------- 35=_____ %

36: Emma and Cher live 3.2 miles from each other. Emma walks at 3.75 ft/s. Cher walks at 4 ft/s. If they leave their houses at the same time and walk directly toward each other, how long does it take them to meet? ---------- 36=_____ min

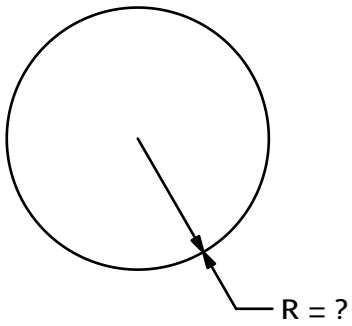
37. RECTANGLE



Perimeter = 3260

37. _____

38. CIRCLE



Circumference = 0.00487

38. _____

39: $(59.5 + 42.2 - 6.13)^2 - (-2820 + 11.4)$ ---------- 39=_____

40: $\left(\frac{69}{80.9}\right)^2 / \left(\frac{28.4}{5.89}\right)^2 - (8.6 - 7.33)$ ---------- 40=_____

41: $\sqrt{206 + 11.5 - 47 - 42.7}$ ---------- 41=_____

42: $\frac{\sqrt{0.572 + 0.81}}{0.837} + \frac{\sqrt{1.31 - 0.433}}{0.837} - \frac{\sqrt{0.0499}}{0.837}$ ---------- 42=_____

43: $\frac{(-6.75)\left(\sqrt{0.243 - 0.052}\right)}{\sqrt{4.11}} - \left[\frac{(0.227)(4.23)}{\left\{7.58 \times 10^{-2}\right\}}\right]$ ---------- 43=_____

44: $\frac{(0.0114 - 7.65 - 8.12)^2}{2.37} + \frac{0.194 + 0.925}{(0.425 + 0.0516 + 0.0759)^2}$ ---------- 44=_____

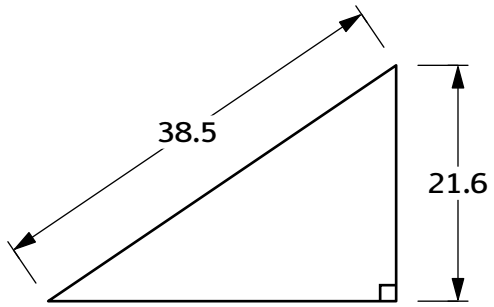
45: $\frac{(1/\pi)^2}{9.48 + 80.2 + \sqrt{22.4}} \times [(14.4)(9.51 - 8.52)]$ ---------- 45=_____

46: $\left(4.51 \times 10^5\right)^{1/2} - \left(9.49 \times 10^7\right)^{1/2} + \frac{(8590) - (961 - 853)}{(66.3 - 3570) / (743 - 4370)}$ ------ 46=_____

47: A grain silo is a right circular cylinder 43 feet tall with a diameter of 12 feet. An auger can drop grain into the silo at 0.7 cubic feet per second. How long will it take to fill an empty silo to 90% full? ---------- 47=_____ hr

48: A farmer has 1120 yards of fencing. He needs to build a rectangular field that holds 8 acres. What length (long side) should the field be? [1 acre = 4840 square yards] ---------- 48=_____ yd

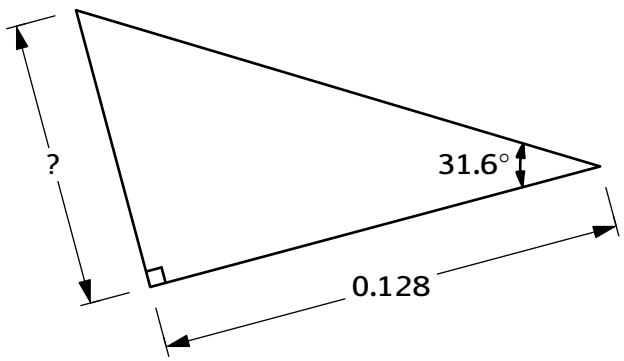
49. RIGHT TRIANGLE



Area = ?

49. _____

50. RIGHT TRIANGLE



50. _____

51: $7\frac{1}{2} + 3\frac{7}{8} + 8\frac{2}{4}$ ---------- 51=_____

52: $(1.92 + 0.395 - 0.533)^3 - (9.70 - 8.93)$ ---------- 52=_____

53: $(0.951)^3 \times \left(\frac{1}{(0.951)}\right)^2 \times \left[\frac{7920 + 2910}{0.951}\right]$ ---------- 53=_____

54: $[(0.515) + (0.736)(0.660)]^{1/3} - (2.28)$ ---------- 54=_____

55: $\sqrt[3]{\left(5.06 \times 10^9\right) + \left(9.9 \times 10^7\right)} \times \frac{3.20 + 1.05}{1.08}$ ---------- 55=_____

56: $\frac{(2.29 - 99.6)(78.4 - 559)}{(-9.85 - 79.6 - 863)(5.18 - 7.26)} - (44.9)^{0.457}$ ---------- 56=_____

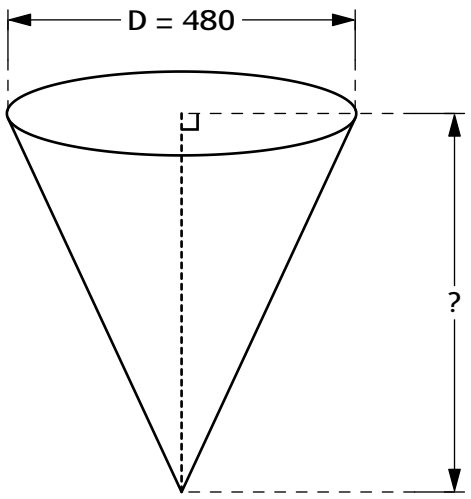
57: $\left[\sqrt{\frac{41.6 + 62.9}{8.96 - 6.45}}\right]^2 + \frac{0.873}{0.0821}$ ---------- 57=_____

58: $(0.0425)^{0.734} \times (5.44 + 9.77)^{0.734} - (0.334 + 0.0371)$ ---------- 58=_____

59: How many digits are in the number $(25552)^{46964}$ when written out? ------ 59=_____ (integer)

60: Blair owns 11 books. She can select 4 books to take with her on a trip. How many different combinations of 4 books are possible for her to choose? ---------- 60=_____ (integer)

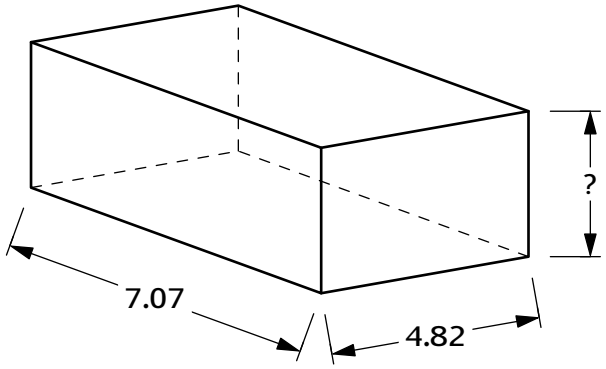
61. RIGHT CIRCULAR CONE



Volume = 3.14×10^7

61. _____

62. RECTANGULAR PRISM



Total Surface Area = 147

62. _____

63: $10^{(2.39)} + 10^{(3.25)} + \sqrt{67400}$ ---------- 63=_____

64: $e^{0.69} \times \sqrt{(0.0655)(0.238)} - \dfrac{1}{\{8.13 \times 10^2\}}$ ---------- 64=_____

65: $\left(\dfrac{23.1}{9.01}\right)^{(-2.78)} - \sqrt{\dfrac{0.701 + 0.736}{3.16}}$ ---------- 65=_____

66: (deg) $[\tan(242°) + \sin(272°)] \times 991$ ---------- 66=_____

67: (deg) $\sin(205° + 343°) + \sin(303°)$ ---------- 67=_____

68: (rad) $\dfrac{1.29[\cos(3.03 + 4.28)]}{\tan(1.13 + 5.81) + 0.634}$ ---------- 68=_____

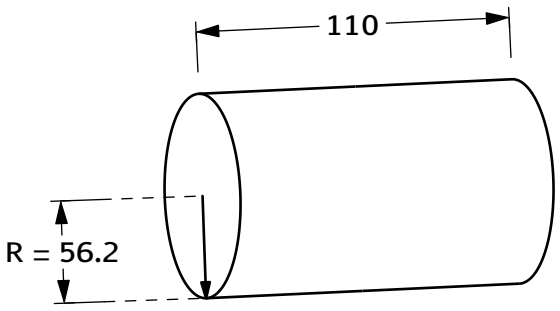
69: (rad) $\left[\sin^2(0.81) + \cos^2(0.81)\right] - (0.952)(0.900)$ ---------- 69=_____

70: $\left(\dfrac{e^{2.75} \times e^{3.19} \times e^{0.303}}{e^{0.928}}\right)^{1/9}$ ---------- 70=_____

71: The number of people in a restaurant can be modeled by the equation $P(t) = -12t^2 + 60t + 6$, where t is the number of hours since the restaurant opened at 10AM. How many people are in the restaurant at 12:30PM? ---------- 71=_____ (integer)

72: On Friday, a taco truck served 89 chicken tacos and 57 beef tacos for a total revenue of $409.70. On Saturday, they sold 124 chicken tacos and 96 beef tacos for a total revenue of $621.40. How much did they earn on Sunday, when they sold 74 chicken tacos and 59 beef tacos? ---------- 72=$_____

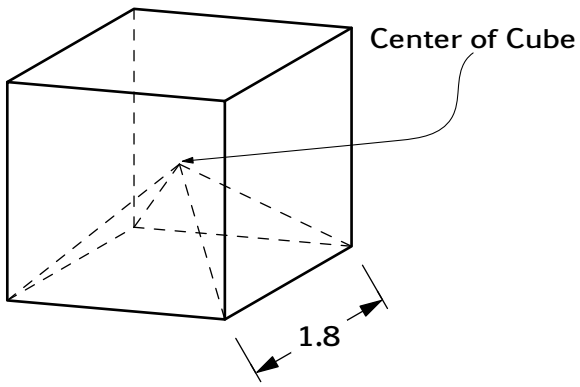
73. RIGHT CIRCULAR CYLINDER



Lateral Surface Area = ?

73. _____

74. CUBE WITH PYRAMIDAL CAVITY



Volume = ?

74. _____

75: (rad) $\dfrac{\tan(5.09) + \tan(3.86)}{1 - \tan(5.09)\tan(3.86)}$ ---------- 75=_____

76: $\text{Ln}[19.7 + 11 + 7630 - 4\pi]$ ---------- 76=_____

77: $\dfrac{\text{Ln}[50.6 \times 2.14 / 9.87]}{\text{Ln}[76.3]} - \dfrac{\text{Ln}[797 - 539]}{\text{Ln}[8.06]}$ ---------- 77=_____

78: $-\dfrac{1}{(3.71)} + \dfrac{1}{3(3.71)^3} - \dfrac{1}{5(3.71)^5} + \dfrac{1}{7(3.71)^7}$ ---------- 78=_____

79: $\text{Log}\left[\dfrac{71500 + 940000}{(5290)(74000)}\right] - e^{\text{Ln}(0.0648)}$ ---------- 79=_____

80: (deg) $\sqrt{[\sin(90° \times 1.68)]} - \left\{\dfrac{\sin(351°)}{\cos(351°)}\right\}$ ---------- 80=_____

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ANSWERS

1= 1610
1.61×10^{3}

2= 1370
1.37×10^{3}

3= 45.0
4.50×10^{1}

4= 2810
2.81×10^{3}

5= 1050
1.05×10^{3}

6= 232
2.32×10^{2}

7= 42.2
4.22×10^{1}

8= 55500
5.55×10^{4}

9= 2.25
2.25×10^{0}

10= 136
1.36×10^{2}

11= 4.23
4.23×10^{0}

12= 106
1.06×10^{2}

13= 90 (integer)

14= 6.96
6.96×10^{0}

15= 3190
3.19×10^{3}

16= −254
-2.54×10^{2}

17= −3030
-3.03×10^{3}

18= 219
2.19×10^{2}

19= 73.6
7.36×10^{1}

20= 0.615
6.15×10^{-1}

21= 10.1
1.01×10^{1}

22= 0.209
2.09×10^{-1}

23= 23.3
2.33×10^{1}

24= 2.83
2.83×10^{0}

25= 0.878
8.78×10^{-1}

26= 40.9
4.09×10^{1}

27= 34.4
3.44×10^{1}

28= 0.0563
5.63×10^{-2}

29= 0.787
7.87×10^{-1}

30= 3.16
3.16×10^{0}

31= 1.42
1.42×10^{0}

32= 72.4
7.24×10^{1}

33= −0.00284
-2.84×10^{-3}

34= 8.19
8.19×10^{0}

35= 0.800
8.00×10^{-1}

36= 36.3
3.63×10^{1}

37= 1110
1.11×10^{3}

38= 0.000775
7.75×10^{-4}

39= 11900
1.19×10^{4}

40= -1.24
-1.24×10^{0}

41= 11.3
1.13×10^{1}

42= 2.26
2.26×10^{0}

43= -14.1
-1.41×10^{1}

44= 108
1.08×10^{2}

45= 0.0153
1.53×10^{-2}

46= -290
-2.90×10^{2}

47= 1.74
1.74×10^{0}

48= 479
4.79×10^{2}

49= 344
3.44×10^{2}

50= 0.0787
7.87×10^{-2}

51= 19.9
1.99×10^{1}

52= 4.89
4.89×10^{0}

53= 10800
1.08×10^{4}

54= -1.28
-1.28×10^{0}

55= 6800
6.80×10^{3}

56= 17.9
1.79×10^{1}

57= 52.3
5.23×10^{1}

58= 0.355
3.55×10^{-1}

59= 206991 **(integer)**

60= 330 **(integer)**

61= 521
5.21×10^{2}

62= 3.32
3.32×10^{0}

63= 2280
2.28×10^{3}

64= 0.248
2.48×10^{-1}

65= -0.601
-6.01×10^{-1}

66= 873
8.73×10^{2}

67= -0.978
-9.78×10^{-1}

68= 0.475
4.75×10^{-1}

69= 0.143
1.43×10^{-1}

70= 1.80
1.80×10^{0}

71= 81 **(integer)**

72= $ 376.05

73= 38800
3.88×10^{4}

74= 4.86
4.86×10^{0}

75= -0.514
-5.14×10^{-1}

76= 8.94
8.94×10^{0}

77= -2.11
-2.11×10^{0}

78= -0.263
-2.63×10^{-1}

79= -2.65
-2.65×10^{0}

80= 0.852
8.52×10^{-1}