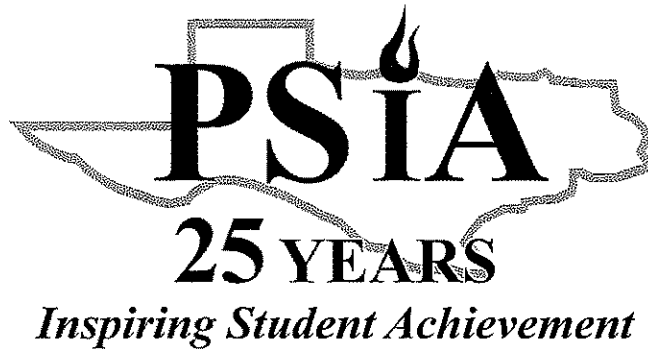


CONTESTANT ID #: \_\_\_\_\_

GRADE LEVEL : \_\_\_\_\_

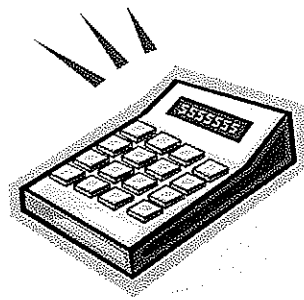
Place Contestant ID label here AFTER  
grading.



# 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.)**

- 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:  $0.5 \times 5.86 / 6.04$  ----- 9=\_\_\_\_\_
- 10:  $960 \times 0.853 \times 0.72 / 0.21$  ----- 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:  $12.2 \times \left[ \frac{78.1 + 1850}{5440 - 65.9} \right]$  ----- 19=\_\_\_\_\_

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

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

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

23:  $\frac{(0.0654)(0.0528)(0.0948 - 0.0905)}{0.821} + \frac{(0.0856 - 0.0266)}{0.0662 + 0.0864}$  ----- 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:  $\{7.67 \times 10^{-3} + 4.07 \times 10^{-2}\} \times \frac{(6.6 - 43.7)}{(2.68 - 0.67)}$  ----- 27=\_\_\_\_\_

28:  $(7.83 \times 10^3) \times \left[ \frac{-0.0189 + (0.545 - 0.751 + 0.00302)(0.337)}{(0.909)(0.899)(-0.834)} \right]$  ----- 28=\_\_\_\_\_

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

30:  $\frac{1}{80.5} - \frac{1}{46.3} - \frac{1}{0.209}$  ----- 30=\_\_\_\_\_

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

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

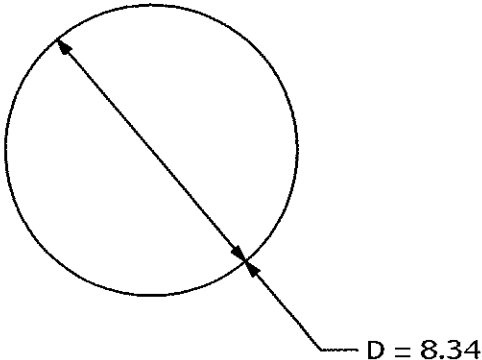
33:  $\frac{1}{(1.06 + 96.2 + 992)} \times \left[ \frac{(788)(42.9 + 6.12 - 8.41)}{(-23.7)(684 + 96.6 - 74.2)} \right]$  ----- 33=\_\_\_\_\_

34:  $\frac{1}{1/(-0.291)} (6.31 + 0.0132) + \{3.65 \times 10^1\}$  ----- 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)

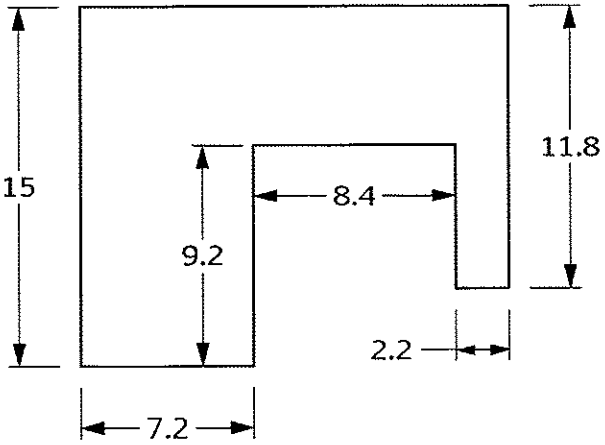
37. **CIRCLE**



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

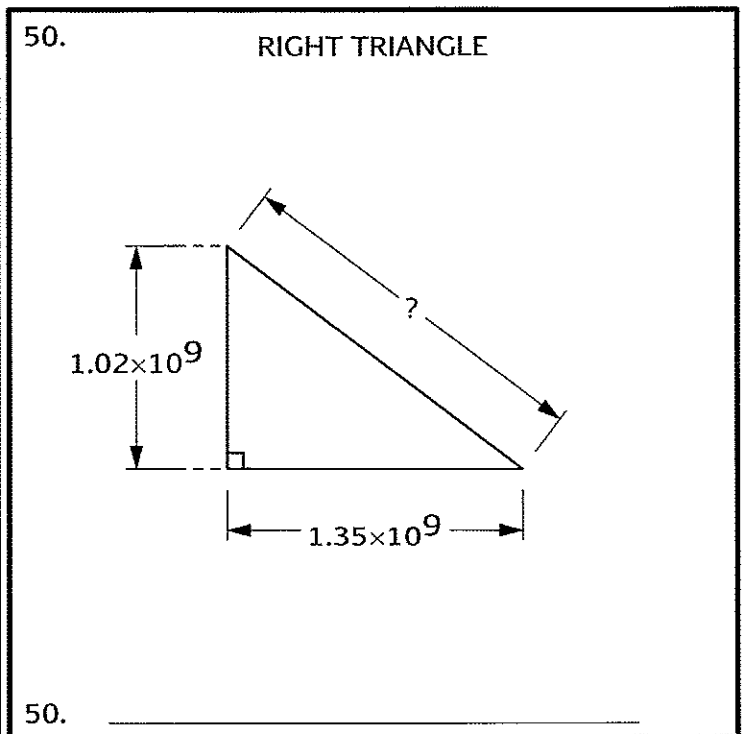
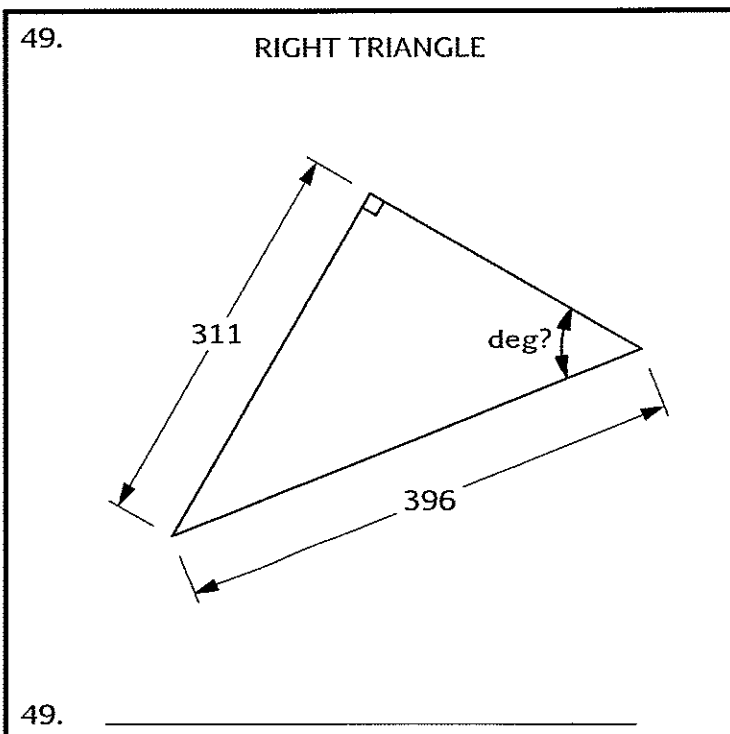
44:  $\frac{(-0.0205 + 7.52 + 6.89)^2}{\pi} + \frac{0.0751 - 5.22}{(-4.34 - 0.0894 - 7.76)^2}$  ----- 44=\_\_\_\_\_

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

46:  $\frac{1}{\sqrt{12.4 - 74.7 + 66.2}} - \sqrt{\frac{(2.48 \times 10^{-5}) + (6.25 \times 10^{-6})}{(1.29 \times 10^{-6})}}$  ----- 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<sup>3</sup>



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:  $\sqrt[3]{(9.96 \times 10^8) - (3.89 \times 10^8)} \times \frac{17.3 + 76.3}{5.46}$  ----- 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:  $e^{0.783} \times \sqrt{(1.54)(0.214)} - \frac{1}{\{5.17 \times 10^{-3}\}}$  ----- 64=\_\_\_\_\_

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

66: (deg)  $[\tan(203^\circ) - \sin(295^\circ)] \times 779$  ----- 66=\_\_\_\_\_

67: (deg)  $\cos(102^\circ + 74^\circ) - \cos(44^\circ)$  ----- 67=\_\_\_\_\_

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

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

70:  $\left(\frac{e^{0.119} \times e^{0.721} \times e^{0.738}}{e^{0.53}}\right)^{1/8}$  ----- 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)  $\frac{\tan(2.32) - \tan(0.62)}{1 + \tan(2.32)\tan(0.62)}$  ----- 75=\_\_\_\_\_

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

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

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

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

80: (deg)  $\sqrt{[\sin(90^\circ \times 1.1)]} - \left\{\frac{\sin(253^\circ)}{\cos(253^\circ)}\right\}$  ----- 80=\_\_\_\_\_



**PSIA – Calculator Applications**  
**District Test – 2022**  
**www.academicmeet.com**

**ANSWERS**

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

39=	9.60 $9.60 \times 10^0$	51=	15.7 $1.57 \times 10^1$	61=	1.45 $1.45 \times 10^0$	73=	29.3 $2.93 \times 10^1$
40=	9760 $9.76 \times 10^3$	52=	-6.64 $-6.64 \times 10^0$	62=	46.8 $4.68 \times 10^1$	74=	16.0 $1.60 \times 10^1$
41=	0.535 $5.35 \times 10^{-1}$	53=	391 $3.91 \times 10^2$	63=	722 $7.22 \times 10^2$	75=	-7.70 $-7.70 \times 10^0$
42=	3.20 $3.20 \times 10^0$	54=	5.46 $5.46 \times 10^0$	64=	-192 $-1.92 \times 10^2$	76=	4.59 $4.59 \times 10^0$
43=	395 $3.95 \times 10^2$	55=	14500 $1.45 \times 10^4$	65=	-0.0883 $-8.83 \times 10^{-2}$	77=	1.17 $1.17 \times 10^0$
44=	65.9 $6.59 \times 10^1$	56=	-8.64 $-8.64 \times 10^0$	66=	1040 $1.04 \times 10^3$	78=	0.319 $3.19 \times 10^{-1}$
45=	-569 $-5.69 \times 10^2$	57=	3.52 $3.52 \times 10^0$	67=	-1.72 $-1.72 \times 10^0$	79=	73.6 $7.36 \times 10^1$
46=	-4.40 $-4.40 \times 10^0$	58=	312 $3.12 \times 10^2$	68=	-3.28 $-3.28 \times 10^0$	80=	-2.28 $-2.28 \times 10^0$
47=	189 (integer)	59=	$2.62 \times 10^{85710}$	69=	1.28 $1.28 \times 10^0$		
48=	237 $2.37 \times 10^2$	60=	240000 $2.40 \times 10^5$	70=	1.14 $1.14 \times 10^0$		
49=	51.8 $5.18 \times 10^1$			71=	705432 (integer)		
50=	$1.69 \times 10^9$			72=	276 (integer)		