8

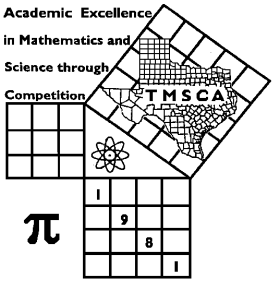
1st Score: _____	2nd Score: _____	3rd Score: _____	
S & G _____	S & G _____	S & G _____	_____. _____
Grader: _____	Grader: _____	Grader: _____	**Final Score**

PLACE LABEL BELOW

Name:_____ School:_____

SS/ID Number:_____ City:_____

Grade: 3 4 5 Classification: 1A 2A 3A 4A 5A 6A



T M S C A E L E M E N T A R Y

C A L C U L A T O R

S T A T E M E E T T E S T ©

2 0 2 1

GENERAL DIRECTIONS

I. About this test:
- A. You will be given 30 minutes to take this test. There are 80 problems on this test.
- B. ALL calculators must be cleared. **HP Prime calculators are not allowed.**

II. How to write the answers:
- A. For all problems except stated problem as noted below write three significant digits.
  1. Examples (* means correct, but not recommended)
     Correct: 12.3, 123, 123.*, 1.23x10*, $1.23x10^{0}$*, $1.23x10^{1}$, $1.23x10^{01}$, .0190, $1.90x10^{-2}$
     Incorrect: 12.30, 123.0, $1.23(10)^{2}$, $1.23\cdot10^{2}$, $1.230x10^{2}$, $1.23*10^{2}$, 0.19, $1.9x10^{-2}$, $19.0x10^{-3}$, 1.90E-02
  2. Plus or minus one digit error in the third significant digit is permitted.
- B. For stated problems:
  1. Except for integer, dollar sign, and significant digit problems, as detailed below, answers to stated problems should be written with three significant digits.
  2. Integer problems are indicated by (integer) in the answer blank. Integer problems answers must be exact, no plus or minus one digit, no decimal point or scientific notation.
  3. Dollar sign ($) problems should be answered to the exact cent, but plus or minus one cent error is permitted. The decimal point and cents are required for exact dollar answers.

III. Some symbols used on the test.
- A. Angle measure: rad means radians; deg means degrees.
- B. Inverse trigonometric functions: arcsin for inverse sine, etc.
- C. Special numbers: π for 3.14159 . . . ; e for 2.71828.
- D. Logarithms: Log means common (base 10); Ln means natural (base e).

IV. Scoring:
- A. All problems answered correctly are worth FIVE points. FOUR points will be deducted for all problems answered incorrectly or skipped before the last problem attempted.

2020 – 2021 TMSCA Elementary Calculator Test Online State

21G-1. (–364) x 224 ---------- 1=_____

21G-2. 331 – 96 ---------- 2=_____

21G-3. 529 + 205 ---------- 3=_____

21G-4. π/262 ---------- 4=_____

21G-5. 4110 – 1120 – 1460 – 5860 ---------- 5=_____

21G-6. 241 + 405 – 1390 ---------- 6=_____

21G-7. 2 + 7 + 11 + 1 + 9 ---------- 7=_____

21G-8. (22 x 19) + 105 – 450 ---------- 8=_____

21G-9. 566 x 199 x 996 ---------- 9=_____

21G-10. (3 + 5) x (10 + 8) ---------- 10=_____

21G-11. The product of negative 18.6 and 14.6 is added to 129. What is the sum? ---------- 11=_____

21G-12. If Andy's birthday is September 18th and Genny's birthday is October 26th of the same year, how many days younger is Genny than Andy? ---------- 12=_____days(integer)

21G-13. Genny cooked up a batch of gravy that totaled 2.75 quarts in volume. If she put the gravy in containers that held at most 5.25 ounces, how many containers would she completely fill? ---------- 13=_____integer

21G-14. $-43 + [24/41]$ ---------- 14=_____

21G-15. $\{(19)(35 - 38)(17)\} - 210$ ---------- 15=_____

21G-16. $\{(55)(224 - 370)(442)\}$ ---------- 16=_____

21G-17. $\{(15)(8.14 - 11)(7)\} - 400$ ---------- 17=_____

21G-18. $\{310\}\left[\frac{369}{507 + 238}\right]$ ---------- 18=_____

21G-19. $\left[\frac{39/38}{12}\right]$ ---------- 19=_____

21G-20. $\left[\frac{30}{28 + 25}\right]$ ---------- 20=_____

21G-21. $\left[\frac{76}{95/57}\right]\{43 + 42\}$ ---------- 21=_____

21G-22. $\frac{(30)(31/32)(32/30)}{(39/13)}$ ---------- 22=_____

21G-23. $\left[\frac{(97/213)-(188/90)}{297/299}\right]$ ---------- 23=_____

21G-24. One day, Noah's classroom of 23 students was missing four students for various reasons. What percentage of students in Noah's class were present that day? ---------- 24=_____%

21G-25. While working the school bake sale, Mackenzie sold 28 slices of pie at $1.25 per slice, 19 packages of brownies at 75¢ per package and 35 lemonade drinks at 50¢ per drink. How much money did Mackenzie earn at the school bake sale? ---------- 25=$_____

21G-26. Wesley's pet turtle can crawl at an average speed of 2 inches per second. How long does it take the turtle to crawl straight across a 5.25-foot wide strip of sidewalk? ---------- 26=_____s

21G-27. $[1.16 \times 10^6 - 6.50 \times 10^6] + [(2700)(998 + 631)]$ ---------- 27=_____

21G-28. $(6.95 \times 10^9) + (1.50 \times 10^9)$ ---------- 28=_____

21G-29. $\dfrac{(680 - 109)}{(216)}$ ---------- 29=_____

21G-30. $(16)[(4140) - (4260)]$ ---------- 30=_____

21G-31. $\dfrac{1}{1430} + \dfrac{1}{(-817)}$ ---------- 31=_____

21G-32. $\dfrac{1}{12} - \dfrac{1}{18} + \dfrac{1}{13}$ ---------- 32=_____

21G-33. $\dfrac{1}{1040} + \dfrac{1}{(1180 - 1290)}$ ---------- 33=_____

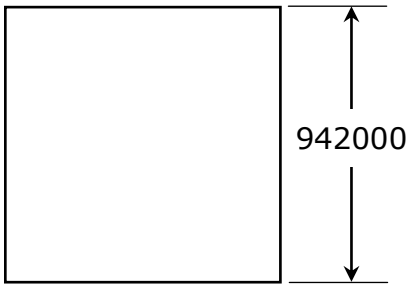
21G-34. $\dfrac{(542 + 185)(0.149)}{(545)}$ ---------- 34=_____

21G-35. Albert put down 12 bricks on the floor. Then he stacked 11 bricks on top of those bricks. He then stacked 10 bricks on top of those bricks. He kept doing this until he placed one brick on the topmost layer. How many bricks did Albert use in this process? ---------- 35_____integer

21G-36. My water pump is rated to pump out water at the rate of 5.75 gallons per minute. If I used the pump to drain my swimming pool, that hold 8,000 gallons, how long would it take? ---------- 36=_____hrs

21G-37.

SQUARE

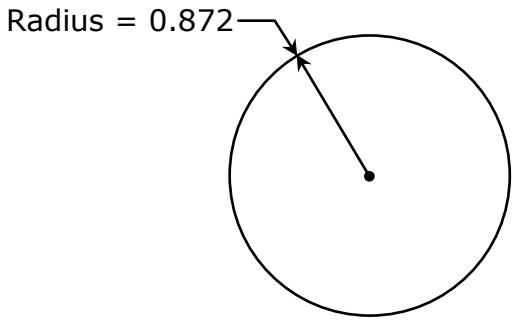


Area = ?

21G-37= _____

21G-38.

CIRCLE



Circumference = ?

21G-38= _____

21G-39. $\frac{1}{0.00511} + \frac{1}{(0.00452 - 0.0059)}$ ---------- 39=_____

21G-40. $\sqrt[3]{9.22\text{x}10^{-4}} + \sqrt{0.00385}$ ---------- 40=_____

21G-41. $\sqrt{7.72\text{x}10^{-4}}$ ---------- 41=_____

21G-42. $\frac{(0.00456)^{-3}}{(0.012 - 0.00482)^{2}}$ ---------- 42=_____

21G-43. $(0.183)\sqrt{0.341 + 0.213 + 0.12}$ ---------- 43=_____

21G-44. $\left[\frac{54.1}{(64.8/0.221)}\right]^{2}$ ---------- 44=_____

21G-45. $(1/139)(68.8 - 0.819)^{3}$ ---------- 45=_____

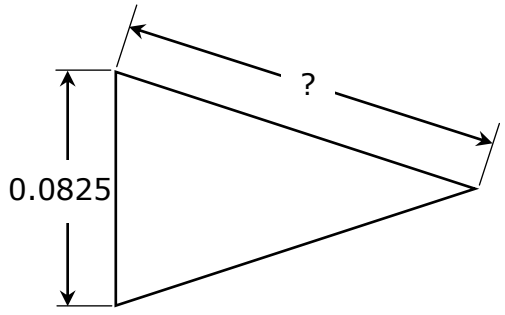
21G-46. $\sqrt{\frac{35.8 + 25}{9140 - 5700}}$ ---------- 46=_____

21G-47. Uncle Mike walked 146 paces due South; turned and then walked 87 paces due West. What is the shortest distance back to his starting point? ---------- 47=_____paces

21G-48. If Paige is traveling at a speed of 35 feet/hour, how fast is she traveling in inches per second?---------- 48=_____in/s

21G-49.

ISOSCELES TRIANGLE

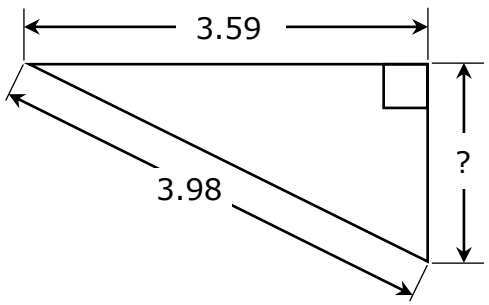


Perimeter = 0.33

21G-49= _____

21G-50.

RIGHT TRIANGLE



21G-50= _____

21G-51. $\dfrac{(3700 + 3270)^3}{(4270 - 825)^2}$ ---------- 51=_____

21G-52. $(0.28)^2\sqrt{(1.14)/(1.12)} - (0.492 + 1.16)$ ---------- 52=_____

21G-53. $\sqrt{(4.25\text{x}10^{-7})/(2.28)} + (9.59 - 9.61)^2$ ---------- 53=_____

21G-54. $\sqrt{(5.48/13.7) + 1.54}$ ---------- 54=_____

21G-55. $\dfrac{1}{\sqrt{178 - 54.1 + 64.8}} + \left(\dfrac{1}{\sqrt{185}}\right)^3$ ---------- 55=_____

21G-56. $\sqrt{\dfrac{1/(1.25 + 0.621)}{(0.819)(0.974 + 0.387)^2}}$ ---------- 56=_____

21G-57. $(34.1)(35.4)^{1/4}$ ---------- 57=_____

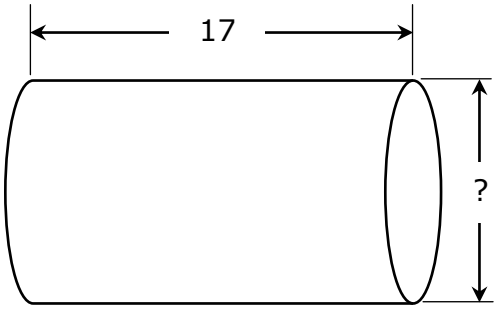
21G-58. $\sqrt{\dfrac{(26.4)(20.6)}{(11.4) + (24.3)}} + 1/(9.14)^{-1}$ ---------- 58=_____

21G-59. Dan took 5 identical wooden cubes that measured 1.25" on each edge. He then placed all the cubes together, with faces touching, forming a straight line of cubes on a tabletop. He then spray painted all the sides he could see. What total area of the cubes was not sprayed? ---------- 59=_____ in^2

21G-60. Andy buys 15 loaves of bread to make sandwiches for the food pantry at church each month. There are 24 slices, including the two end pieces called "heels", in each loaf. If he uses two slices of bread per sandwich and he does not use the heels in making sandwiches, how many sandwiches does he make in one year?---------- 60=_____ integer

21G-61.

RIGHT CYLINDER



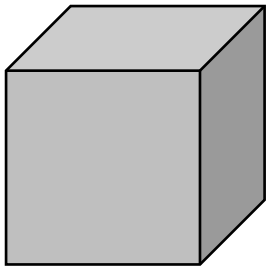
Volume = 730

21G-61= _____

21G-62.

SOLID CUBE

Total Surface Area = 10



Volume = ?

21G-62= _____

21G-63. $\frac{19!}{23!} + 1.93\text{x}10^{-6}$ ---------- 63=_____

21G-64. $\frac{15!}{22!}$ ---------- 64=_____

21G-65. $e^{0.61}$ ---------- 65=_____

21G-66. (deg) (58.1)tan(32°) ---------- 66=_____

21G-67. $(51.8 - 6.96)e^{4.92}$ ---------- 67=_____

21G-68. (deg) (541)tan(81.2° – 83.2°) ---------- 68=_____

21G-69. (rad) $\frac{\sin(2)}{19.2}$ ---------- 69=_____

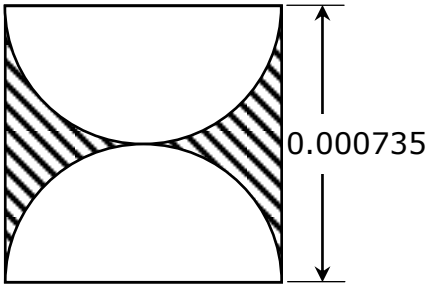
21G-70. (rad) sin[(6.39 – 2.72)(0.762)] ---------- 70=_____

21G-71. How many cubic inches of seawater are there in a column of seawater that measures 12’ in diameter and is 38’ deep?---------- 71=_____ in^3

21G-72. A standard deck of playing cards has 52 cards. If two decks are shuffled together, what is the probability of randomly drawing an ace of hearts with a single card-pick from the combined card decks?------- 72=_____

21G-73.

SEMICIRCLES AND SQUARE



Shaded Area = ?

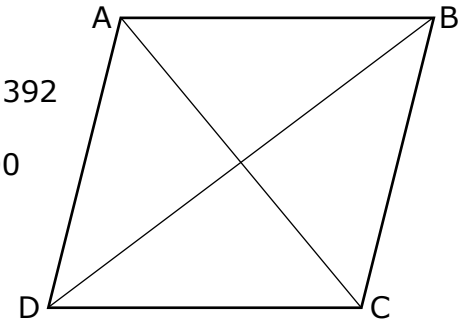
21G-73= _____

21G-74.

RHOMBUS

Diagonal AC = 392

Area = 78400



Diagonal BD = ?

21G-74= _____

21G-75. (deg) $\frac{\sin(16°)}{\tan(16°)}$ [0.148] ---------- 75=_____

21G-76. $(1.97 - 1.5 + 0.282)^{2/3}$ ---------- 76=_____

21G-77. Log 1.2 + Ln 1.23 ---------- 77=_____

21G-78. 1 + 2 + 3 + ... + 53 ---------- 78=_____

21G-79. $\text{Log}\sqrt{\frac{199 - 172}{(0.0825)(0.0477)}}$ ---------- 79=_____

21G-80. $(0.621)^{0.628}(1.32)^{1.22}$ ---------- 80=_____

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21G-1 = -81500
= -8.15×10^{4}

21G-2 = 235
= 2.35×10^{2}

21G-3 = 734
= 7.34×10^{2}

21G-4 = 0.0120
= 1.20×10^{-2}

21G-5 = -4330
= -4.33×10^{3}

21G-6 = -744
= -7.44×10^{2}

21G-7 = 30.0
= 3.00×10^{1}

21G-8 = 73.0
= 7.30×10^{1}

21G-9 = 1.12×10^{8}

21G-10 = 144
= 1.44×10^{2}

21G-11 = -143
= -1.43×10^{2}

21G-12 = 38
Integer Answer

21G-13 = 16
Integer Answer

21G-14 = -42.4
= -4.24×10^{1}

21G-15 = -1180
= -1.18×10^{3}

21G-16 = -3.55×10^{6}

21G-17 = -700
= -7.00×10^{2}

21G-18 = 154
= 1.54×10^{2}

21G-19 = 0.0855
= 8.55×10^{-2}

21G-20 = 0.566
= 5.66×10^{-1}

21G-21 = 3880
= 3.88×10^{3}

21G-22 = 10.3
= 1.03×10^{1}

21G-23 = -1.64
= -1.64×10^{0}

21G-24 = 82.6
= 8.26×10^{1}

21G-25 = 66.75
Dollar Answer

21G-26 = 31.5
= 3.15×10^{1}

21G-27 = -942000
= -9.42×10^{5}

21G-28 = 8.45×10^{9}

21G-29 = 2.64
= 2.64×10^{0}

21G-30 = -1920
= -1.92×10^{3}

21G-31 = -0.000525
= -5.25×10^{-4}

21G-32 = 0.105
= 1.05×10^{-1}

21G-33 = -0.00813
= -8.13×10^{-3}

21G-34 = 0.199
= 1.99×10^{-1}

21G-35 = 78
Integer Answer

21G-36 = 23.2
= 2.32×10^{1}

21G-37 = 8.87×10^{11}

21G-38 = 5.48
= 5.48×10^{0}

2020 – 2021 TMSCA Elementary Calculator Test Online State Answer Key

21G-39 = -529
= -5.29×10^{2}

21G-40 = 0.159
= 1.59×10^{-1}

21G-41 = 0.0278
= 2.78×10^{-2}

21G-42 = 2.05×10^{11}

21G-43 = 0.150
= 1.50×10^{-1}

21G-44 = 0.0340
= 3.40×10^{-2}

21G-45 = 2260
= 2.26×10^{3}

21G-46 = 0.133
= 1.33×10^{-1}

21G-47 = 170
= 1.70×10^{2}

21G-48 = 0.117
= 1.17×10^{-1}

21G-49 = 0.124
= 1.24×10^{-1}

21G-50 = 1.72
= 1.72×10^{0}

21G-51 = 28500
= 2.85×10^{4}

21G-52 = -1.57
= -1.57×10^{0}

21G-53 = 0.000832
= 8.32×10^{-4}

21G-54 = 1.39
= 1.39×10^{0}

21G-55 = 0.0732
= 7.32×10^{-2}

21G-56 = 0.594
= 5.94×10^{-1}

21G-57 = 83.2
= 8.32×10^{1}

21G-58 = 13.0
= 1.30×10^{1}

21G-59 = 20.3
= 2.03×10^{1}

21G-60 = 1980
Integer Answer

21G-61 = 7.39
= 7.39×10^{0}

21G-62 = 2.15
= 2.15×10^{0}

21G-63 = 6.64×10^{-6}

21G-64 = 1.16×10^{-9}

21G-65 = 1.84
= 1.84×10^{0}

21G-66 = 36.3
= 3.63×10^{1}

21G-67 = 6140
= 6.14×10^{3}

21G-68 = -18.9
= -1.89×10^{1}

21G-69 = 0.0474
= 4.74×10^{-2}

21G-70 = 0.338
= 3.38×10^{-1}

21G-71 = 7.43×10^{6}

21G-72 = 0.0192
= 1.92×10^{-2}

21G-73 = 1.16×10^{-7}

21G-74 = 400
= 4.00×10^{2}

21G-75 = 0.142
= 1.42×10^{-1}

21G-76 = 0.827
= 8.27×10^{-1}

21G-77 = 0.286
= 2.86×10^{-1}

21G-78 = 1430
= 1.43×10^{3}

21G-79 = 1.92
= 1.92×10^{0}

21G-80 = 1.04
= 1.04×10^{0}