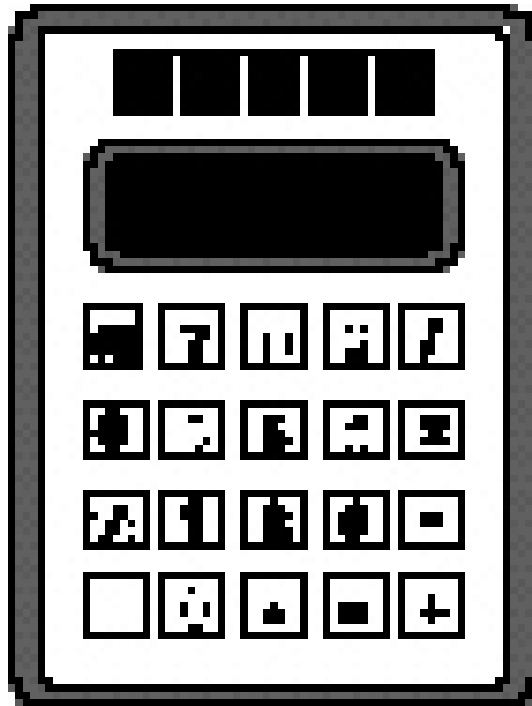


INVITATIONAL 2021-2022

A+ ACADEMICS



University Interscholastic League



Calculator Applications

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

2022 UIL MS Calculator Test A

22X-1. $-662 - 911$ ----- 1= _____

22X-2. $30 - 19 - 23$ ----- 2= _____

22X-3. $473 + 495 + 364$ ----- 3= _____

22X-4. $15 - 11 - 51 + 45$ ----- 4= _____

22X-5. $428 - 894 - 1010 - 353$ ----- 5= _____

22X-6. $78.8 + 201 - 138 - 319 - 209$ ----- 6= _____

22X-7. $\pi + 1.67 + 0.215 + 1.37 + 1.61$ ----- 7= _____

22X-8. $3.95 - 3.37 + \pi - 4.46 - 3.54$ ----- 8= _____

22X-9. $87.5 \times 211 \times 136$ ----- 9= _____

22X-10. $56.3 \times 389 \times 1650 \times 41.9$ ----- 10= _____

22X-11. What is the sum of 23.7 6.89 and 26.5? ----- 11= _____

22X-12. Matt rode his bicycle 49 miles in 4.5 hours. What was his average speed, in miles per hour (mph), for the bike ride? ----- 12= _____ mph

22X-13. How many days are in the second quarter of this year? --- 13= _____ days (integer)

22X-14. $(-422)[580 \times 175/582]$ ----- 14= _____

22X-15. $373/[410 \times 50 \times 313]$ ----- 15= _____

22X-16. $\left[\frac{136}{87}\right] [(202/36) - 0.735]$ ----- 16= _____

22X-17. $\left[\frac{423}{328}\right] [(172/359) + 0.434]$ ----- 17= _____

22X-18. $\left[\frac{(0.316 + 0.216)}{32/45}\right] \left[\frac{59.4}{5.76 \times 10^{-4}}\right]$ ----- 18= _____

22X-19. $\left[\frac{328/230}{248/152}\right] \{5.57 + 31.9 - 27.2\}$ ----- 19= _____

22X-20. $(0.427)[242/276 \times 130/135] - 0.262$ ----- 20= _____

22X-21. $\frac{160}{(86 - 113)} - \frac{(95 - 40)}{179}$ ----- 21= _____

22X-22. $\frac{(70.7 + 17.6 - 31.5)}{\{(46.7 - 14.8)/(0.059)\}}$ ----- 22= _____

22X-23. $\frac{(3530 \times 767)/1290}{(1140 \times 0.864) + 788}$ ----- 23= _____

22X-24. A golf ball weighs 1.62 ounces. How much does a bucket of forty-eight golf balls weigh, in pounds (lbs), neglecting the weight of the bucket itself? ----- 24= _____ lbs

22X-25. A US forever postage stamp, with the likeness of professional baseball player, Yogi Berra, was introduced for sale in 2021. If the cost of each stamp is 55¢, what is the greatest number of these stamps I can purchase for \$20? ----- 25= _____ stamps (integer)

22X-26. In 2020, Taylor Swift's *Folklore* album reportedly sold 2.3 million album-units. Assuming there are exactly 366 days in that year, about how many albums-units (albm) were sold each hour? ----- 26= _____ albm

22X-27. $(0.126)[(0.00444/0.00447)(0.00101 + 0.00139)]$ ----- 27= _____

22X-28. $\frac{(0.00355 + 0.0146)(70.4 + 50.8)}{(9.14 \times 10^{10})}$ ----- 28= _____

22X-29. $\frac{(15.6 - 8.47)(44.7 + 33.1)}{(7.03 \times 10^{12})}$ ----- 29= _____

22X-30. $\frac{1}{0.00411} + \frac{1}{(\pi)(0.029 - 0.016)}$ ----- 30= _____

22X-31. $\frac{1}{9.41} + \frac{1}{(96.3 - 91.4)}$ ----- 31= _____

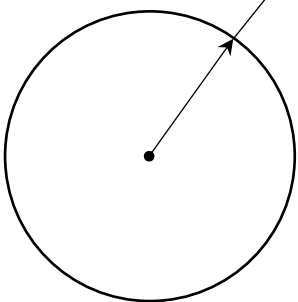
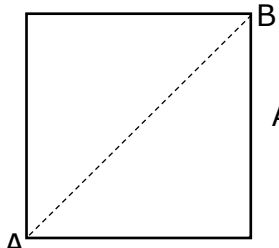
22X-32. $(0.0647) \left[\frac{0.004}{(3.46 \times 10^{-11})} \right]$ ----- 32= _____

22X-33. $\frac{1}{34.3} - \frac{1}{(41.1 + 39.5)}$ ----- 33= _____

22X-34. $1/(0.0193 - 0.0153) - 1/(0.00182)$ ----- 34= _____

22X-35. During one week in June, it rained 2.3 in, 0.75 in, 1.25 in, 3.30 in and 0.25 in. What is the average daily rainfall for that week? - 35= _____ in

22X-36. Kenzie starts from home and rides her bicycle at an average speed of 11.5 mph. Noah starts 14 minutes later and follows Kenzie exact path but at an average speed of 13 mph. How long does it take Noah to catch Kenzie? ----- 36= _____ min

<p>22X-37.</p> <p style="text-align: center;">CIRCLE</p>  <p style="text-align: right; margin-right: 100px;">0.000628</p> <p style="text-align: center;">Circumference = ?</p> <p>22X-37= _____</p>	<p>22X-38.</p> <p style="text-align: center;">SQUARE</p>  <p style="text-align: right; margin-right: 50px;">AB = 937000</p> <p style="text-align: center;">Square Area = ?</p> <p>22X-38= _____</p>
--	---

22X-39. $\sqrt{\frac{0.43 + 1}{11.2 - 9.09}}$ ----- 39= _____

22X-40. $(236 + 40)^2(364 + 139)^2$ ----- 40= _____

22X-41. $\frac{(2170 + 2580)^2}{(0.176 - 0.0956)^3}$ ----- 41= _____

22X-42. $\sqrt{128} + \sqrt{157 + 54.8} - (\pi)\sqrt{17}$ ----- 42= _____

22X-43. $\sqrt{(486/1080) + 0.272 - 0.209}$ ----- 43= _____

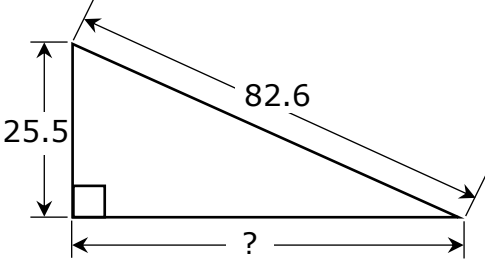
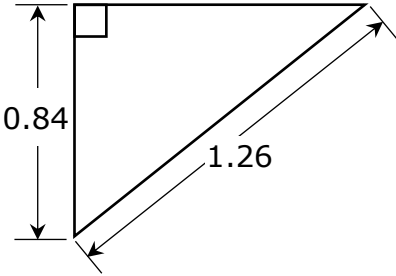
22X-44. $(1/\pi)\sqrt[3]{\frac{0.0154 + 0.0141}{0.14 - 0.125}}$ ----- 44= _____

22X-45. $\frac{1}{\sqrt{284 + 273 + 971}} + \left(\frac{1}{\sqrt{2.24}}\right)^3$ ----- 45= _____

22X-46. $(506)\sqrt{11700 + 21700 - 11600}$ ----- 46= _____

22X-47. Genny walked due west 124 meters and stopped. Paige started at the same location but she walked due south for 83.7 meters and stopped. How far apart are the two women? ----- 47= _____ m

22X-48. Wes cut a square sheet exactly in half along the diagonal. If the longest edge of the triangle measures 7.25 in, what is the area of one side of the triangle sheet? ----- 48= _____ in²

<p>22X-49. RIGHT TRIANGLE</p>  <p>22X-49= _____</p>	<p>22X-50. RIGHT TRIANGLE</p>  <p>Triangle Area = ?</p> <p>22X-50= _____</p>
---	---

22X-51. $\left[\frac{1340 - 454 + \sqrt{3.59 \times 10^6 / 7.45}}{-12.8 + 13.9} \right]^5$ ----- 51= _____

22X-52. $\left[\frac{\sqrt{\sqrt{22400 - 20200}}}{-(14.4 - 15.3)} \right]^2 [6.49 + 6.95]$ ----- 52= _____

22X-53. $\sqrt{\frac{1.53 \times 10^{12}}{(1380)(351)}} + \frac{(3.58 \times 10^5 - 1.41 \times 10^5)}{(52.6 + 58.9)}$ ----- 53= _____

22X-54. $0.0933 + \sqrt{(438)/(1760)} - (0.572 + 0.446)^2$ ----- 54= _____

22X-55. $(81.7)^2 \sqrt{(1.67)/(423)} - (182 + 77.4)$ ----- 55= _____

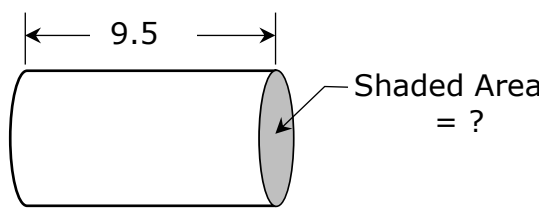
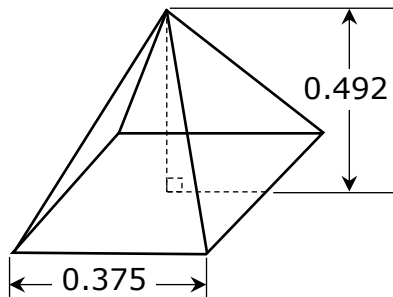
22X-56. $(0.0977)(3.47 \times 10^8)^{1/4} - [(165)(208)]^{1/4}$ ----- 56= _____

22X-57. $\sqrt{\frac{(104)(10)}{(235) + (180)}} - 1.77$ ----- 57= _____

22X-58. $(\text{deg}) \cos(1030^\circ) + (12.6/4.35)$ ----- 58= _____

22X-59. Andy can mow his lawn in 45 minutes using the riding lawnmower and he can mow the same lawn in 3.25 hours using his push-mower. One day he started to mow the lawn with his riding lawnmower but it ran out of gas after 28 minutes of mowing. If he finished the mowing with the push-mower, how much total time did he take to mow the lawn? ----- 59= _____ min

22X-60. The formula that allows one to calculate the pressure in a liquid is $P = P_0 + \rho gh$. P stands for the pressure at a certain depth in the liquid, P_0 is the atmospheric pressure at sea level, ρ is the density of the liquid, g is the acceleration due to gravity, and h is the depth within the liquid. If the pressure in the sea at a certain depth is 300,000 Pascals, the pressure at sea level is 101,000 Pascals, the density of sea water is 1029 Kg/m³, and the acceleration due to gravity is 9.81 m/sec², what is this certain depth in the sea? (Note that the units given in this problem will yield a depth in units of meters.) ----- 60= _____ m

<p>22X-61. RIGHT CYLINDER</p> <div style="text-align: center; margin: 10px 0;">  </div> <p style="margin-left: 40px;">Cylinder Volume = 175</p> <p>22X-61= _____</p>	<p>22X-62. SQUARE PYRAMID</p> <div style="text-align: center; margin: 10px 0;">  </div> <p style="margin-left: 40px;">Volume = ?</p> <p>22X-62= _____</p>
---	---

22X-63. $\frac{18!}{10!} + 13!$ ----- 63= _____

22X-64. (deg) $\frac{\cos(184^\circ)}{149}$ ----- 64= _____

22X-65. $(1.20 \times 10^8 - 8.44 \times 10^7)^{-8} (1.67 \times 10^8)$ ----- 65= _____

22X-66. (rad) $\sin\left[\frac{(400)(\pi)}{(292)(2.12)}\right]$ ----- 66= _____

22X-67. (deg) $(1340 - 5140)\tan(464^\circ) + 9680$ ----- 67= _____

22X-68. (deg) $\frac{\cos(605^\circ)}{1660 + 447}$ ----- 68= _____

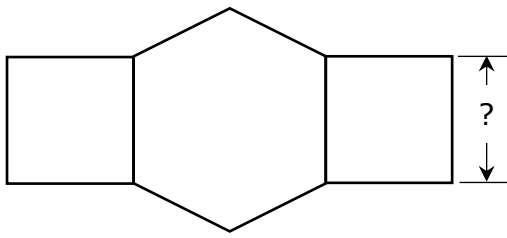
22X-69. (rad) $(116)\sin(21.4)$ ----- 69= _____

22X-70. $(17.4 - 16 + 47.4)^{2/3}$ ----- 70= _____

22X-71. Amanda decided to completely wrap a round hay bale and make it look like a giant marshmallow. If the bale is shaped like a cylinder with diameter 5 feet and length 4 feet, what is the total surface area she'll need to wrap? ----- 71= _____ ft^2

22X-72. The product of two consecutive odd integers is 1023. What is the sum of the two integers? ----- 72= _____ integer

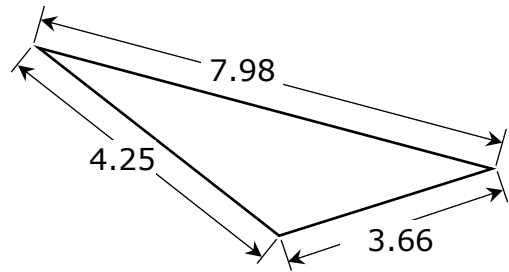
22X-73.
REGULAR HEXAGON AND SQUARES



Perimeter = 329

22X-73= _____

22X-74.
SCALENE TRIANGLE



Semi-Perimeter = ?

22X-74= _____

22X-75. $\frac{(5.06)^{0.793}(7.63)^{0.772}}{(4.2 - 2.05)^{-10}}$ ----- 75= _____

22X-76. $\ln\left[\frac{348 + 342 + 88}{92 + 396 - 104}\right]$ ----- 76= _____

22X-77. $\log\sqrt{\frac{0.356 - 0.222}{(6.13)(0.715)}}$ ----- 77= _____

22X-78. $\frac{\log[17200 + (236)(103)]}{1.88 + \log[164 + 153]}$ ----- 78= _____

22X-79. $1 + 2 + 3 + \dots + 866$ ----- 79= _____

22X-80. $1 + \frac{(0.509)^4}{2} - \frac{(0.509)^6}{6} + \frac{(0.509)^8}{24} - \frac{(0.509)^{10}}{120}$ ----- 80= _____

2022 UIL MS Calculator Test A Answer Key

22X-1	= -1570 = -1.57×10^3	22X-14	= -73600 = -7.36×10^4	22X-27	= 0.000300 = 3.00×10^{-4}
22X-2	= -12.0 = -1.20×10^1	22X-15	= 5.81×10^{-5}	22X-28	= 2.41×10^{-11}
22X-3	= 1330 = 1.33×10^3	22X-16	= 7.62 = 7.62×10^0	22X-29	= 7.89×10^{-11}
22X-4	= -2.00 = -2.00×10^0	22X-17	= 1.18 = 1.18×10^0	22X-30	= 268 = 2.68×10^2
22X-5	= -1830 = -1.83×10^3	22X-18	= 77200 = 7.72×10^4	22X-31	= 0.310 = 3.10×10^{-1}
22X-6	= -386 = -3.86×10^2	22X-19	= 8.98 = 8.98×10^0	22X-32	= 7.48×10^6
22X-7	= 8.01 = 8.01×10^0	22X-20	= 0.0985 = 9.85×10^{-2}	22X-33	= 0.0167 = 1.67×10^{-2}
22X-8	= -4.28 = -4.28×10^0	22X-21	= -6.23 = -6.23×10^0	22X-34	= -299 = -2.99×10^2
22X-9	= 2.51×10^6	22X-22	= 0.105 = 1.05×10^{-1}	22X-35	= 1.57 = 1.57×10^0
22X-10	= 1.51×10^9	22X-23	= 1.18 = 1.18×10^0	22X-36	= 107 = 1.07×10^2
22X-11	= 57.1 = 5.71×10^1	22X-24	= 4.86 = 4.86×10^0	22X-37	= 0.00395 = 3.95×10^{-3}
22X-12	= 10.9 = 1.09×10^1	22X-25	= 36 Integer Answer	22X-38	= 4.39×10^{11}
22X-13	= 91 Integer Answer	22X-26	= 262 = 2.62×10^2		

2022 UIL MS Calculator Test A Answer Key

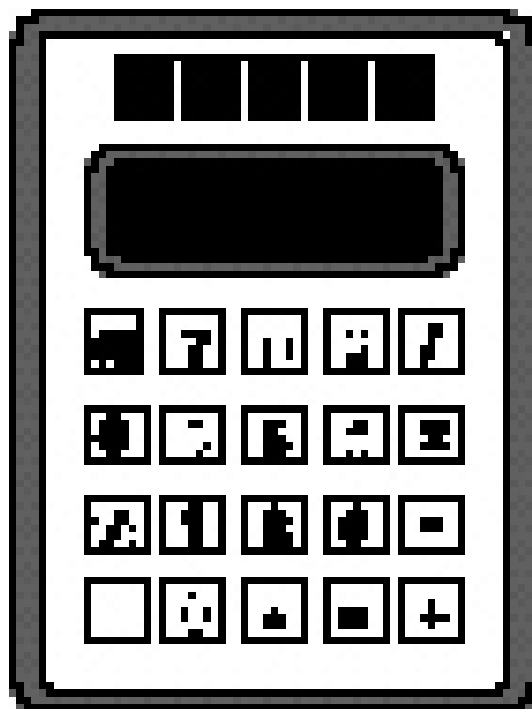
22X-39	= 0.823	22X-51	= 6.12×10^{15}	22X-61	= 18.4	22X-73	= 32.9
	= 8.23×10^{-1}	22X-52	= 778		= 1.84×10^1		= 3.29×10^1
22X-40	= 1.93×10^{10}		= 7.78×10^2	22X-62	= 0.0231	22X-74	= 7.95
					= 2.31×10^{-2}		= 7.95×10^0
22X-41	= 4.34×10^{10}	22X-53	= 3720	22X-63	= 7.99×10^9	22X-75	= 36700
			= 3.72×10^3				= 3.67×10^4
22X-42	= 12.9	22X-54	= -0.444	22X-64	= -0.00670	22X-76	= 0.706
	= 1.29×10^1		= -4.44×10^{-1}		= -6.70×10^{-3}	22X-77	= -0.757
22X-43	= 0.716	22X-55	= 160	22X-65	= 6.47×10^{-53}	22X-78	= 1.05
	= 7.16×10^{-1}		= 1.60×10^2		= 8.96×10^{-1}		= 1.05×10^0
22X-44	= 0.399	22X-56	= -0.276	22X-66	= 0.896	22X-79	= 375000
	= 3.99×10^{-1}		= -2.76×10^{-1}				= 3.75×10^5
22X-45	= 0.324	22X-57	= -0.187	22X-67	= 24900	22X-80	= 1.03
	= 3.24×10^{-1}		= -1.87×10^{-1}		= 2.49×10^4		= 1.03×10^0
22X-46	= 74700	22X-58	= 3.54	22X-68	= -0.000201		
	= 7.47×10^4		= 3.54×10^0		= -2.01×10^{-4}		
22X-47	= 150	22X-59	= 102	22X-69	= 64.6		
	= 1.50×10^2		= 1.02×10^2		= 6.46×10^1		
22X-48	= 13.1	22X-60	= 19.7	22X-70	= 13.4		
	= 1.31×10^1		= 1.97×10^1		= 1.34×10^1		
22X-49	= 78.6			22X-71	= 165		
	= 7.86×10^1				= 1.65×10^2		
22X-50	= 0.394			22X-72	= 64		
	= 3.94×10^{-1}				Integer Answer		

FALL/WINTER DISTRICT 2021-2022

A+ ACADEMICS



University Interscholastic League



Calculator Applications

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

2022 UIL MS Calculator Test B

22Y-1. $4990 - 4250$ ----- 1= _____

22Y-2. $13 - 24 + 8$ ----- 2= _____

22Y-3. $-14.1 + 2.2 + 6.3$ ----- 3= _____

22Y-4. $11 - \pi - 2 + 4$ ----- 4= _____

22Y-5. $1820 - 3250 - 4750 + 2100$ ----- 5= _____

22Y-6. $338 + 51 - 146 - 317 + 89.5$ ----- 6= _____

22Y-7. $(0.884 - \pi) + (2.04 - 1.78 - 4.36)$ ----- 7= _____

22Y-8. $(2.28 + 2.31 - \pi) - (5.4 + 1.26)$ ----- 8= _____

22Y-9. $379 \times 44.4 \times 546$ ----- 9= _____

22Y-10. $608 \times 138 \times 59.3 \times 950$ ----- 10= _____

22Y-11. What is the product of pi and 4830? ----- 11= _____

22Y-12. A one mile stretch of highway, Interstate 10 (I10), cost 4.5 million dollars. How much did a one-foot length of the highway cost? - 12=\$_____

22Y-13. A fortnight equals two weeks. How many hours are there in two fortnights? ----- 13= _____ hrs (integer)

22Y-14. $(136)[116 \times 121/73]$ ----- 14= _____

22Y-15. $(166/26)[32 - 212]$ ----- 15= _____

22Y-16. $\{(-567)(113 - 601)(633)\} - 7.48 \times 10^7$ ----- 16= _____

22Y-17. $\left[\frac{28}{179}\right] [(55/98) + 0.409]$ ----- 17= _____

22Y-18. $\left[\frac{(5130/7040) - (1060/3040)}{0.00141/(4.00 \times 10^{-4})}\right]$ ----- 18= _____

22Y-19. $\frac{[2.42/(2.13)]/1.58}{(8.07 \times 10^{-4} \times 9.40 \times 10^{-4})(61.4)}$ ----- 19= _____

22Y-20. $\frac{(235)(0.0442)}{574} (0.0252 - 0.019)$ ----- 20= _____

22Y-21. $\frac{280}{(127 - 279)} - \frac{(80 - 84)}{320}$ ----- 21= _____

22Y-22. $\frac{(6870 \times 2260)/7300}{(1300 \times 47.8) + 40700}$ ----- 22= _____

22Y-23. $\left[\frac{159 + 344}{814 - 764}\right] \left[\frac{358}{776}\right]$ ----- 23= _____

22Y-24. At a going-out-of-business sale Mike was promised he could buy a ton of 11-lb bowling balls for \$100. What is the least number of balls that Mike should get for his \$100? ----- 24= _____ balls (integer)

22Y-25. Dan's new truck is supposed to get 18.3 miles per gallon of fuel used. If Dan drives 428 miles how many gallons of fuel does his truck use? ----- 25= _____ gal

22Y-26. The 2020-21 adopted property tax rate for the Springtown school district was \$1.2442 per \$100 property evaluation. If a new home and the land it is on in the Springtown ISD evaluated at \$397,750, how much did the school district taxes for the property amount to? ----- 26= \$ _____

22Y-27. $[887 - (1590 + 2610)] + [(1.17)(1930 - 3090)]$ ----- 27= _____

22Y-28. $(0.0361)[[9.79 \times 10^{-4} / (0.00451)][0.0431 / (0.0575)]]$ ---- 28= _____

22Y-29. $\frac{(0.0072 - 0.0111)(144 + 247)}{(1.33 \times 10^{11})}$ ----- 29= _____

22Y-30. $\frac{(0.00302 + 0.0216)}{(2.48 \times 10^{11})}$ ----- 30= _____

22Y-31. $(3.26)[(3.06 \times 10^8) - (2.14 \times 10^8)]$ ----- 31= _____

22Y-32. $[15.7] \left[\frac{1/0.00348}{1/(0.00406)} \right]$ ----- 32= _____

22Y-33. $1/(0.231 - 0.146) - 1/(0.0323)$ ----- 33= _____

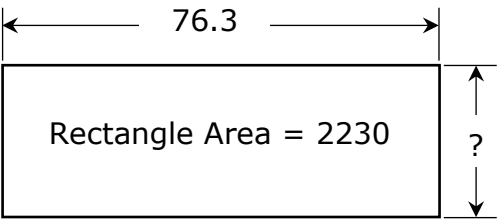
22Y-34. $\frac{1}{631} - \frac{1}{907} + \frac{1}{901}$ ----- 34= _____

22Y-35. If ninety thousand is divided by 31 what is the remainder? 35= _____ integer

22Y-36. One day Liz, who is 5' 8" tall cast a shadow of length 22.3 ft. A nearby tree cast a shadow of length 44 ft. How tall is the tree? ----- 36= _____ ft

22Y-37.

RECTANGLE

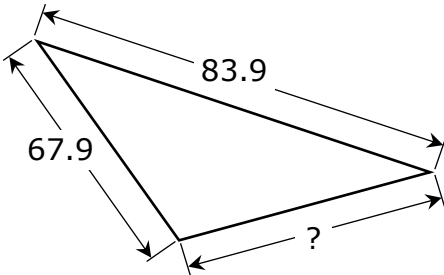


Rectangle Area = 2230

22Y-37= _____

22Y-38.

SCALENE TRIANGLE



Triangle Perimeter = 227

22Y-38= _____

22Y-39. $\left[\frac{3700 + (1/(1.51 \times 10^{-4}))}{(10900/6000) - 0.995} \right]^2$ ----- 39= _____

22Y-40. $\left[\frac{9.02}{41.3} \right] (5.25 + 24.2)^2$ ----- 40= _____

22Y-41. $\sqrt{\frac{0.0853 + 0.244}{31.6 - 14.8}}$ ----- 41= _____

22Y-42. $(1/\pi) \sqrt[3]{\frac{0.00911 + 0.021}{0.0156 - 0.00218}}$ ----- 42= _____

22Y-43. $\sqrt{44.4} + \sqrt{74.9 + 52.3} - (\pi)\sqrt{77.2}$ ----- 43= _____

22Y-44. $(1/(6.06 \times 10^{-4}))(1770 - 1510)^3$ ----- 44= _____

22Y-45. $\sqrt{0.584 - 1490/6720} + 1/\sqrt{2.57 + 2.26}$ ----- 45= _____

22Y-46. $\frac{1}{\sqrt{3030 + 7190 + 4120}} + \left(\frac{1}{\sqrt{9.27}} \right)^4$ ----- 46= _____

22Y-47. Dan leaned the 24-ft long ladder against the wall of his business and the ladder stuck out 2 feet beyond the top edge of the wall. If the bottom of the ladder was 7.5 ft from the bottom of the wall, how tall is the wall of Dan's business? ----- 47= _____ ft

22Y-48. If the radius of the Earth is 3960 miles what is the straight line distance from the equator to geographic point of the North Pole?-- 48= _____ mi

22Y-49. RIGHT TRIANGLE

22Y-49= _____

22Y-50. ISOSCELES RIGHT TRIANGLE

Triangle Area = ?

22Y-50= _____

22Y-51. $\sqrt{\frac{2.39 \times 10^{-4}}{(1.35)(0.0901)}} + \frac{(3.79 - 16.4)}{(143 + 61.7)}$ ----- 51= _____

22Y-52. $\frac{(464 + 769 - 200)^3}{\sqrt{29900 + 24700 + 30000}}$ ----- 52= _____

22Y-53. $\left[\frac{15.5 + 8.43 + \sqrt{143 + 134}}{2080/3690} \right]^4$ ----- 53= _____

22Y-54. $\sqrt{\frac{(51600)(73200)}{(12100)(19000)}} - 3.27 + 1.4$ ----- 54= _____

22Y-55. $(18.1)^2 \sqrt{(348)/(1.66)} - (3910 + 3320)$ ----- 55= _____

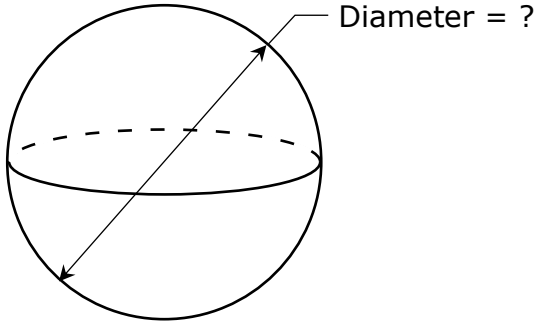
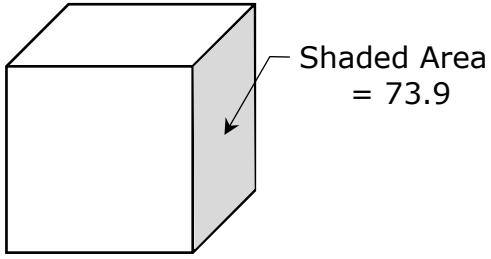
22Y-56. $(263)(1.28 \times 10^9)^{1/2} - [(2.30 \times 10^{10})(4.39 \times 10^{10})]^{1/3}$ ---- 56= _____

22Y-57. $(\text{rad}) \tan(284) + (369/213)$ ----- 57= _____

22Y-58. $\sqrt{\frac{1/(10.3 - 8.14)}{(25)(542 + 963)^{-2}}}$ ----- 58= _____

22Y-59. Andy can mow his lawn in 45 minutes using the riding lawnmower and he can mow the same lawn in 2.75 hours using his push-mower. One day he started to mow the lawn with his riding lawnmower but it ran out of gas after 30 minutes of mowing. If he finished the mowing with the push-mower, how much total time did he take to mow the lawn? ----- 59= _____ min

22Y-60. The formula for finding the final speed of an object thrown straight down after a certain amount of time (disregarding any air friction) is $v_F = v_I + gt$; where v_F is the final speed, v_I is the initial speed, g is the acceleration due to gravity, 32.174 ft/sec^2 , and t is the time the object is in flight. Matt throws a stone straight down and 1.75 seconds later the rock has a speed of 88 ft/s. With what initial speed did the rock leave Matt's hand? ----- 60= _____ ft/s

<p>22Y-61. SPHERE</p> <div style="text-align: center;">  </div> <p style="text-align: center;">Volume = 0.00328</p> <p>22Y-61= _____</p>	<p>22Y-62. CUBE</p> <div style="text-align: center;">  </div> <p style="text-align: center;">Volume = ?</p> <p>22Y-62= _____</p>
--	---

22Y-63. $\frac{22! + 24!}{9!}$ ----- 63= _____

22Y-64. $(33.1 - \pi)e^{0.546}$ ----- 64= _____

22Y-65. $(\text{deg}) (1.89 + 0.498)\sin(569^\circ)$ ----- 65= _____

22Y-66. $(\text{deg}) \tan(25.1^\circ - 26.9^\circ) + 0.00962$ ----- 66= _____

22Y-67. $(\text{deg}) [13.9]\tan(9.13^\circ - 6.4^\circ)$ ----- 67= _____

22Y-68. $(\text{rad}) (24100)\cos(26.4)$ ----- 68= _____

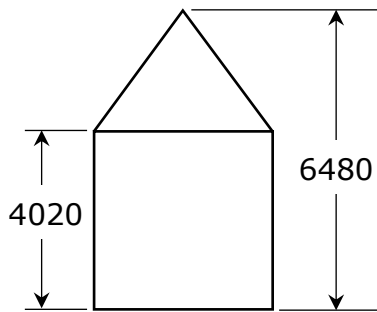
22Y-69. $(\text{rad}) \cos[(0.407 - 0.681)(9.28)]$ ----- 69= _____

22Y-70. $(241 - 156)e^{\pi - 0.383}$ ----- 70= _____

22Y-71. The sum of the first 25 whole numbers is divided by pi.
 What is the result?----- 71= _____

22Y-72. A number squared added to three times itself is equal to
 28. What is that number if it is a positive number? ----- 72= _____

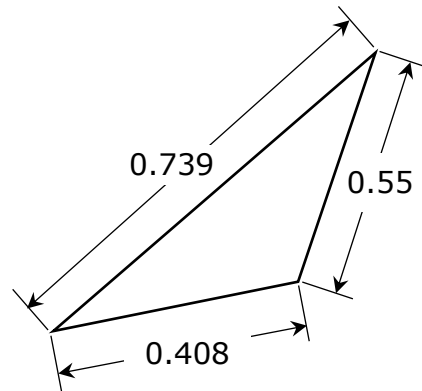
22Y-73.
SQUARE AND ISOCELES TRIANGLE



Total Area = ?

22Y-73= _____

22Y-74.
SCALENE TRIANGLE



Semi-Perimeter = ?

22Y-74= _____

22Y-75. $\ln\left[\frac{25.8 + 50.7 + 47.8}{231 + 449 - 356}\right]$ ----- 75= _____

22Y-76. $\frac{28.6 + \sqrt{(11.6)(43.4) + (\pi)(35.2)}}{\sqrt{\sqrt{0.0754 + 0.0843}}}$ ----- 76= _____

22Y-77. $(4450)_{10}^{(0.141)(4.9)}$ ----- 77= _____

22Y-78. $(61)^\pi(2.88)^2(109 - 99.9)^5$ ----- 78= _____

22Y-79. $1 + 3 + 5 + \dots + 853$ ----- 79= _____

22Y-80. $1 + (0.17) + \frac{(0.17)^2}{2} + \frac{(0.17)^3}{6} + \frac{(0.17)^4}{24}$ ----- 80= _____

2022 UIL MS Calculator Test B Answer Key

$$\begin{aligned} 22Y-1 &= 740 \\ &= 7.40 \times 10^2 \end{aligned}$$

$$\begin{aligned} 22Y-14 &= 26100 \\ &= 2.61 \times 10^4 \end{aligned}$$

$$\begin{aligned} 22Y-27 &= -4670 \\ &= -4.67 \times 10^3 \end{aligned}$$

$$\begin{aligned} 22Y-2 &= -3.00 \\ &= -3.00 \times 10^0 \end{aligned}$$

$$\begin{aligned} 22Y-15 &= -1150 \\ &= -1.15 \times 10^3 \end{aligned}$$

$$\begin{aligned} 22Y-28 &= 0.00587 \\ &= 5.87 \times 10^{-3} \end{aligned}$$

$$\begin{aligned} 22Y-3 &= -5.60 \\ &= -5.60 \times 10^0 \end{aligned}$$

$$22Y-16 = 1.00 \times 10^8$$

$$22Y-29 = -1.15 \times 10^{-11}$$

$$\begin{aligned} 22Y-4 &= 9.86 \\ &= 9.86 \times 10^0 \end{aligned}$$

$$\begin{aligned} 22Y-17 &= 0.152 \\ &= 1.52 \times 10^{-1} \end{aligned}$$

$$22Y-30 = 9.93 \times 10^{-14}$$

$$\begin{aligned} 22Y-5 &= -4080 \\ &= -4.08 \times 10^3 \end{aligned}$$

$$\begin{aligned} 22Y-18 &= 0.108 \\ &= 1.08 \times 10^{-1} \end{aligned}$$

$$22Y-31 = 3.00 \times 10^8$$

$$\begin{aligned} 22Y-32 &= 18.3 \\ &= 1.83 \times 10^1 \end{aligned}$$

$$\begin{aligned} 22Y-6 &= 15.5 \\ &= 1.55 \times 10^1 \end{aligned}$$

$$\begin{aligned} 22Y-19 &= 15400 \\ &= 1.54 \times 10^4 \end{aligned}$$

$$\begin{aligned} 22Y-33 &= -19.2 \\ &= -1.92 \times 10^1 \end{aligned}$$

$$\begin{aligned} 22Y-7 &= -6.36 \\ &= -6.36 \times 10^0 \end{aligned}$$

$$\begin{aligned} 22Y-20 &= 0.000112 \\ &= 1.12 \times 10^{-4} \end{aligned}$$

$$\begin{aligned} 22Y-34 &= 0.00159 \\ &= 1.59 \times 10^{-3} \end{aligned}$$

$$\begin{aligned} 22Y-8 &= -5.21 \\ &= -5.21 \times 10^0 \end{aligned}$$

$$\begin{aligned} 22Y-21 &= -1.83 \\ &= -1.83 \times 10^0 \end{aligned}$$

$$22Y-35 = 7$$

Integer Answer

$$22Y-9 = 9.19 \times 10^6$$

$$\begin{aligned} 22Y-22 &= 0.0207 \\ &= 2.07 \times 10^{-2} \end{aligned}$$

$$\begin{aligned} 22Y-36 &= 11.2 \\ &= 1.12 \times 10^1 \end{aligned}$$

$$22Y-10 = 4.73 \times 10^9$$

$$\begin{aligned} 22Y-23 &= 4.64 \\ &= 4.64 \times 10^0 \end{aligned}$$

$$\begin{aligned} 22Y-37 &= 29.2 \\ &= 2.92 \times 10^1 \end{aligned}$$

$$\begin{aligned} 22Y-11 &= 15200 \\ &= 1.52 \times 10^4 \end{aligned}$$

$$22Y-24 = 182$$

Integer Answer

$$\begin{aligned} 22Y-38 &= 75.2 \\ &= 7.52 \times 10^1 \end{aligned}$$

$$22Y-12 = 852.27$$

Dollar Answer

$$\begin{aligned} 22Y-25 &= 23.4 \\ &= 2.34 \times 10^1 \end{aligned}$$

$$22Y-13 = 672$$

Integer Answer

$$22Y-26 = 4948.81$$

Dollar Answer

2022 UIL MS Calculator Test B Answer Key

$$22Y-39 = 1.58 \times 10^8$$

$$22Y-40 = 189$$

$$= 1.89 \times 10^2$$

$$22Y-41 = 0.140$$

$$= 1.40 \times 10^{-1}$$

$$22Y-42 = 0.417$$

$$= 4.17 \times 10^{-1}$$

$$22Y-43 = -9.66$$

$$= -9.66 \times 10^0$$

$$22Y-44 = 2.90 \times 10^{10}$$

$$22Y-45 = 1.06$$

$$= 1.06 \times 10^0$$

$$22Y-46 = 0.0200$$

$$= 2.00 \times 10^{-2}$$

$$22Y-47 = 20.7$$

$$= 2.07 \times 10^1$$

$$22Y-48 = 5600$$

$$= 5.60 \times 10^3$$

$$22Y-49 = 0.0483$$

$$= 4.83 \times 10^{-2}$$

$$22Y-50 = 2.40 \times 10^{24}$$

$$22Y-51 = -0.0173$$

$$= -1.73 \times 10^{-2}$$

$$22Y-52 = 3.79 \times 10^6$$

$$22Y-53 = 2.68 \times 10^7$$

$$= 2.18 \times 10^0$$

$$22Y-54 = 2.18$$

$$= 2.18 \times 10^0$$

$$22Y-55 = -2490$$

$$= -2.49 \times 10^3$$

$$22Y-56 = -623000$$

$$= -6.23 \times 10^5$$

$$22Y-57 = 4.81$$

$$= 4.81 \times 10^0$$

$$22Y-58 = 205$$

$$= 2.05 \times 10^2$$

$$22Y-59 = 85.0$$

$$= 8.50 \times 10^1$$

$$22Y-60 = 31.7$$

$$= 3.17 \times 10^1$$

$$22Y-61 = 0.184$$

$$= 1.84 \times 10^{-1}$$

$$22Y-62 = 635$$

$$= 6.35 \times 10^2$$

$$22Y-63 = 1.71 \times 10^{18}$$

$$22Y-64 = 51.7$$

$$= 5.17 \times 10^1$$

$$22Y-65 = -1.16$$

$$= -1.16 \times 10^0$$

$$22Y-66 = -0.0218$$

$$= -2.18 \times 10^{-2}$$

$$22Y-67 = 0.663$$

$$= 6.63 \times 10^{-1}$$

$$22Y-68 = 7200$$

$$= 7.20 \times 10^3$$

$$22Y-69 = -0.826$$

$$= -8.26 \times 10^{-1}$$

$$22Y-70 = 1340$$

$$= 1.34 \times 10^3$$

$$22Y-71 = 103$$

$$= 1.03 \times 10^2$$

$$22Y-72 = 4.00$$

$$= 4.00 \times 10^0$$

$$22Y-73 = 2.11 \times 10^7$$

$$22Y-74 = 0.894$$

$$= 8.94 \times 10^{-1}$$

$$22Y-75 = -0.958$$

$$= -9.58 \times 10^{-1}$$

$$22Y-76 = 256$$

$$= 2.56 \times 10^2$$

$$22Y-77 = 21800$$

$$= 2.18 \times 10^4$$

$$22Y-78 = 2.10 \times 10^{11}$$

$$22Y-79 = 182000$$

$$= 1.82 \times 10^5$$

$$22Y-80 = 1.19$$

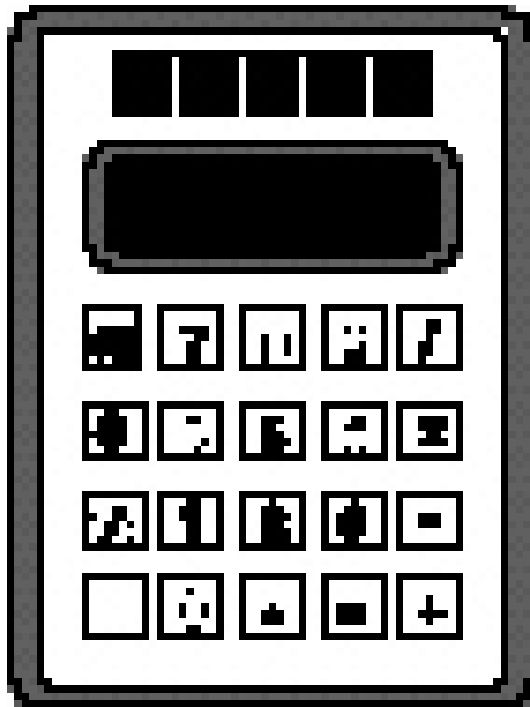
$$= 1.19 \times 10^0$$

SPRING DISTRICT 2021-2022

A+ ACADEMICS



University Interscholastic League



Calculator Applications

**DO NOT OPEN TEST
UNTIL TOLD TO DO SO**

2022 UIL MS Calculator Test C

22Z-1. $3650 - 1760$ ----- 1= _____

22Z-2. $27 + 30 - 24$ ----- 2= _____

22Z-3. $512 + 1210 - 770$ ----- 3= _____

22Z-4. $12 - 10 - 10 + \pi$ ----- 4= _____

22Z-5. $66 + 74 - 209 - 124$ ----- 5= _____

22Z-6. $229 + 270 - 154 - 315 - 339$ ----- 6= _____

22Z-7. $-1.32 + 1.44 - \pi + 1.56 + 1.15$ ----- 7= _____

22Z-8. $(-3.63 + 3.64 - 1.76) - (2.42 + 3.94)$ ----- 8= _____

22Z-9. $89.5 \times 50.9 \times 178$ ----- 9= _____

22Z-10. $1100 \times 176 \times 199 \times 1390$ ----- 10= _____

22Z-11. What is the product of 34.7 and -14200?----- 11= _____

22Z-12. A one mile stretch of highway, Interstate 35 (I35), cost 7.8 million dollars. How much did a one-foot length of the highway cost? - 12=\$_____

22Z-13. A fortnight equals two weeks. How many hours are there in three fortnights? ----- 13= _____ hrs (integer)

22Z-14. $(429)[207 \times 525/512]$ ----- 14= _____

22Z-15. $-120/[92 \times 27 \times 27]$ ----- 15= _____

22Z-16. $\{(80)(26 - 111)(119)\} - 7.27 \times 10^5$ ----- 16= _____

22Z-17. $\left[\frac{234}{131}\right] [(101/94) + 0.208]$ ----- 17= _____

22Z-18. $\left[\frac{(1490/656) - (2290/2700)}{0.36/(0.735)}\right]$ ----- 18= _____

22Z-19. $\left[\frac{426/318}{463/341}\right] \{13.8 + 18.4 - 17.4\}$ ----- 19= _____

22Z-20. $\frac{175}{(285 - 56)} - \frac{(82 - 228)}{87}$ ----- 20= _____

22Z-21. $\frac{(\pi)(7/14)(26/9)}{213}$ ----- 21= _____

22Z-22. $\frac{(\pi)(84/146)(64/88)}{(98/36)}$ ----- 22= _____

22Z-23. $\left[\frac{2360 + 5240}{5600 - 5210}\right] \left[\frac{5980}{3280}\right]$ ----- 23= _____

22Z-24. At a garage sale Maria was promised she would get at least 55 golf balls in a sack. If the average golf ball weighs 1.62 ounces (oz) (dry measure), and the weight of the sack is negligible, at least how much should the sack of golf balls weigh? ----- 24= _____ oz (integer)

22Z-25. Dan's new truck is supposed to get 19.5 miles per gallon of fuel used. If Dan drives 495 miles, how many gallons of fuel does his truck use? ----- 25= _____ gal

22Z-26. The 2020-21 adopted property tax rate for the Azle school district was \$1.2474 per \$100 property evaluation. If a new home and land it is on in the Azle ISD evaluated at \$398,750, how much did the school district taxes for the property amount to? ----- 26=\$ _____

22Z-27. $\frac{(3.16 - 21.7)(0.03 + 0.00561)}{(3.22 \times 10^{10})}$ ----- 27= _____

22Z-28. $\frac{(2.81 \times 10^{10}) + (1.22 \times 10^{10})}{(-0.0639)(0.0462) - 0.00152}$ ----- 28= _____

22Z-29. $[6250 - (7720 + 6020)] + [(0.466)(1610 - 3260)]$ ----- 29= _____

22Z-30. $\frac{(10.7 + 31.6)}{(9.84 \times 10^{10})}$ ----- 30= _____

22Z-31. $(0.0159) \left[\frac{0.0194}{(2.76 \times 10^8)} \right]$ ----- 31= _____

22Z-32. $\frac{1}{\pi} + \frac{1}{(\pi)(21.1 - 27)}$ ----- 32= _____

22Z-33. $\frac{1}{531} - \frac{1}{(129 + 336)}$ ----- 33= _____

22Z-34. $\left[\frac{1/163}{1/276} \right] + [0.251]$ ----- 34= _____

22Z-35. If fifty thousand is divided by 17, what is the remainder? -- 35= _____ integer

22Z-36. One day Lisa, who is 5' 9" tall cast a shadow of length 21.4 ft. A nearby tree cast a shadow of length 63 ft. How tall is the tree? ----- 36= _____ ft

<p>22Z-37. RECTANGLE</p> <div style="text-align: center; margin: 20px 0;"> </div> <p style="text-align: center;">22Z-37= _____</p>	<p>22Z-38. SCALENE TRIANGLE</p> <div style="text-align: center; margin: 20px 0;"> </div> <p style="text-align: center;">22Z-38= _____</p>
---	--

22Z-39. $(89.4 + 615)^2(30.4 + 5.68)^2$ ----- 39= _____

22Z-40. $(963 + 1460 + 632)^2(3.57 + 2.58)^2$ ----- 40= _____

22Z-41. $\left[\frac{583}{761}\right](32.7 + 32.4)^3$ ----- 41= _____

22Z-42. $(1/\pi)\sqrt[4]{\frac{1.25 + 0.365}{0.0114 - 0.0107}}$ ----- 42= _____

22Z-43. $(1/(0.00233))(2.06 \times 10^5 - 6.02 \times 10^5)^3$ ----- 43= _____

22Z-44. $(87.2)\sqrt{3840 + 4900 + 2380}$ ----- 44= _____

22Z-45. $\frac{1}{\sqrt{2360 + 5930 + 2410}} + \left(\frac{1}{\sqrt{7.77}}\right)^4$ ----- 45= _____

22Z-46. $\sqrt[3]{1.23 - 818/843} + 1/\sqrt{13 + 18.7}$ ----- 46= _____

22Z-47. Amanda leaned the 24-ft long ladder against the wall of her business and the ladder stuck out 2 feet beyond the top edge of the wall. If the bottom of the ladder was 7 ft from the bottom of the wall how tall is the wall of Amanda's business? ----- 47= _____ ft

22Z-48. If the radius of the Moon is 1079.4 miles what is the straight line distance from the equator to the Lunar South Pole? ----- 48= _____ mi

22Z-49. **RIGHT TRIANGLE**

22Z-49= _____

22Z-50. **ISOSCELES RIGHT TRIANGLE**

Triangle Area = ?

22Z-50= _____

22Z-51. $\frac{(8920 + 6820 - 8300)^3}{\sqrt{0.656 + 0.223 + 0.103}}$ ----- 51= _____

22Z-52. $\frac{\sqrt{6.29 + \pi + 3.92}}{(2.13 - 0.444 + 1.58)^4}$ ----- 52= _____

22Z-53. $\sqrt{\frac{2.87 \times 10^{14}}{(20.8)(10500)} + \frac{(8680 - 8050)}{(0.00188 + 0.011)}}$ ----- 53= _____

22Z-54. $\sqrt{\frac{1/(460 - 246)}{(7.68)(19.8 + 71)^6}}$ ----- 54= _____

22Z-55. $\sqrt{\frac{(3.95 \times 10^5)(6.14 \times 10^5)}{(33400)(4300)} - 31.4 + 39.4}$ ----- 55= _____

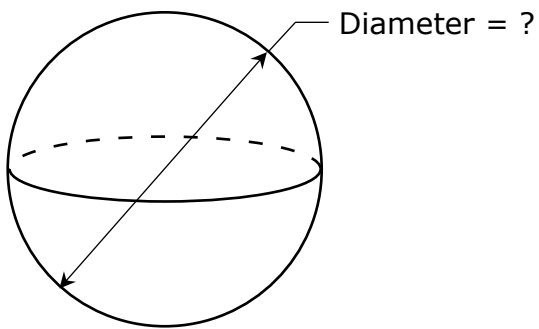
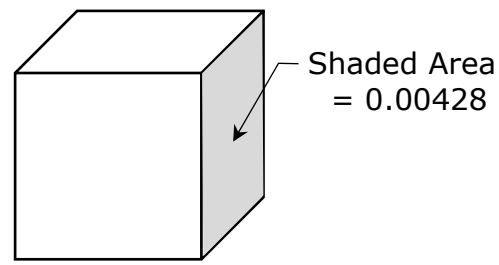
22Z-56. $10400 + \sqrt{(25900)(35700)} - (39700 + 35300)$ ----- 56= _____

22Z-57. $\sqrt{\frac{(1210)(166)}{(9.58) + (6.12)}} - 444$ ----- 57= _____

22Z-58. $\sqrt{\frac{(1190)(13)}{(71.6) + (86.4)}} + 1/(1.58)^{-5}$ ----- 58= _____

22Z-59. Andy can mow his lawn in 50 minutes using the riding lawnmower and he can mow the same lawn in 2.75 hours using his push-mower. One day he started to mow the lawn with his riding lawnmower but it ran out of gas after 30 minutes of mowing. If he finished the mowing with the push-mower, how much total time did he take to mow the lawn? ----- 59= _____ min

22Z-60. The formula for finding the final speed of an object thrown straight down after a certain amount of time (disregarding any air friction) is $v_F = v_I + gt$; where v_F is the final speed, v_I is the initial speed, g is the acceleration due to gravity, 32.174 ft/sec^2 , and t is the time the object is in flight. Matt throws a stone straight down and 1.75 seconds later the rock has a speed of 75 ft/s. With what initial speed did the rock leave Matt's hand? ----- 60= _____ ft/s

<p>22Z-61.</p> <p style="text-align: center;">SPHERE</p>  <p style="text-align: center;">Volume = 849000</p> <p>22Z-61= _____</p>	<p>22Z-62.</p> <p style="text-align: center;">CUBE</p>  <p style="text-align: center;">Volume = ?</p> <p>22Z-62= _____</p>
--	--

22Z-63. $\frac{27!/9!}{6! + 4!}$ ----- 63= _____

22Z-64. $(28900 - 16300)^{-4}(2.04 \times 10^8)$ ----- 64= _____

22Z-65. (deg) $(27.3 - 34.5)\sin(8.7^\circ)$ ----- 65= _____

22Z-66. (deg) $[6.85]\tan(18.8^\circ - 8.79^\circ)$ ----- 66= _____

22Z-67. (deg) $\cos(2.69^\circ - 2.16^\circ) + 0.775$ ----- 67= _____

22Z-68. (deg) $\frac{\sin(1.39^\circ) - \tan(1.39^\circ)}{\sin(1.39^\circ)}$ ----- 68= _____

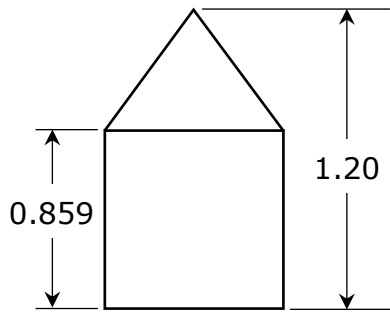
22Z-69. (rad) $\tan[(3.51 - 2.85)(17.8)]$ ----- 69= _____

22Z-70. $(221 - 186)e^{\pi - 0.396}$ ----- 70= _____

22Z-71. The sum of the first 30 whole numbers is divided by pi.
 What is the result?----- 71= _____

22Z-72. A number squared added to six times itself is equal to
 28. What is that number if it is a positive number? ----- 72= _____

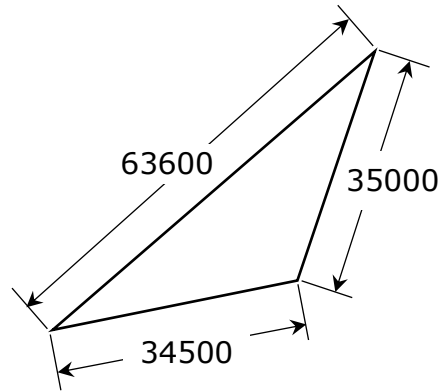
22Z-73.
 SQUARE AND ISOSCELES TRIANGLE



Total Area = ?

22Z-73= _____

22Z-74.
 SCALENE TRIANGLE



Semi-Perimeter = ?

22Z-74= _____

22Z-75. $\frac{\text{Log}(1260 + 1140)}{1680 - 1270}$ ----- 75= _____

22Z-76. $\text{Ln}\left[\frac{31.1 + 133 + 28.7}{201 + 547 - 363}\right]$ ----- 76= _____

22Z-77. $\frac{23000 - 17400}{\text{Log}(51.4 + 24)}$ ----- 77= _____

22Z-78. $\text{Ln}\left[\frac{84.6 + 69.4 + 223}{177 - 67.5 - 73.9}\right]$ ----- 78= _____

22Z-79. $1 + 3 + 5 + \dots + 671$ ----- 79= _____

22Z-80. $(0.699) - \frac{(0.699)^2}{2} + \frac{(0.699)^3}{3} - \frac{(0.699)^4}{4}$ ----- 80= _____

2022 UIL MS Calculator Test C Answer Key

22Z-1	= 1890 = 1.89×10^3	22Z-14	= 91100 = 9.11×10^4	22Z-27	= -2.05×10^{-11}
22Z-2	= 33.0 = 3.30×10^1	22Z-15	= -0.00179 = -1.79×10^{-3}	22Z-28	= -9.01×10^{12}
22Z-3	= 952 = 9.52×10^2	22Z-16	= -1.54×10^6	22Z-29	= -8260 = -8.26×10^3
22Z-4	= -4.86 = -4.86×10^0	22Z-17	= 2.29 = 2.29×10^0	22Z-30	= 4.30×10^{-10}
22Z-5	= -193 = -1.93×10^2	22Z-18	= 2.91 = 2.91×10^0	22Z-32	= 0.264 = 2.64×10^{-1}
22Z-6	= -309 = -3.09×10^2	22Z-19	= 14.6 = 1.46×10^1	22Z-33	= -0.000267 = -2.67×10^{-4}
22Z-7	= -0.312 = -3.12×10^{-1}	22Z-20	= 2.44 = 2.44×10^0	22Z-34	= 1.94 = 1.94×10^0
22Z-8	= -8.11 = -8.11×10^0	22Z-21	= 0.0213 = 2.13×10^{-2}	22Z-35	= 3 Integer Answer
22Z-9	= 811000 = 8.11×10^5	22Z-22	= 0.483 = 4.83×10^{-1}	22Z-36	= 16.9 = 1.69×10^1
22Z-10	= 5.36×10^{10}	22Z-23	= 35.5 = 3.55×10^1	22Z-37	= 82.2 = 8.22×10^1
22Z-11	= -493000 = -4.93×10^5	22Z-24	= 90 Integer Answer	22Z-38	= 71.9 = 7.19×10^1
22Z-12	= 1477.27 Dollar Answer	22Z-25	= 25.4 = 2.54×10^1		
22Z-13	= 1008 Integer Answer	22Z-26	= 4974.01 Dollar Answer		

2022 UIL MS Calculator Test C Answer Key

$$22Z-39 = 6.46 \times 10^8$$

$$22Z-40 = 3.53 \times 10^8$$

$$22Z-41 = 211000$$

$$= 2.11 \times 10^5$$

$$22Z-42 = 2.21$$

$$= 2.21 \times 10^0$$

$$22Z-43 = -2.67 \times 10^{19}$$

$$22Z-44 = 9200$$

$$= 9.20 \times 10^3$$

$$22Z-45 = 0.0262$$

$$= 2.62 \times 10^{-2}$$

$$22Z-46 = 0.816$$

$$= 8.16 \times 10^{-1}$$

$$22Z-47 = 20.9$$

$$= 2.09 \times 10^1$$

$$22Z-48 = 1530$$

$$= 1.53 \times 10^3$$

$$22Z-49 = 102000$$

$$= 1.02 \times 10^5$$

$$22Z-50 = 5.52 \times 10^{24}$$

$$22Z-51 = 4.16 \times 10^{11}$$

$$22Z-52 = 0.0321$$

$$= 3.21 \times 10^{-2}$$

$$22Z-53 = 85200$$

$$= 8.52 \times 10^4$$

$$22Z-54 = 3.29 \times 10^{-8}$$

$$22Z-55 = 49.1$$

$$= 4.91 \times 10^1$$

$$22Z-56 = -34200$$

$$= -3.42 \times 10^4$$

$$22Z-57 = -331$$

$$= -3.31 \times 10^2$$

$$22Z-58 = 19.7$$

$$= 1.97 \times 10^1$$

$$22Z-59 = 96.0$$

$$= 9.60 \times 10^1$$

$$22Z-60 = 18.7$$

$$= 1.87 \times 10^1$$

$$22Z-61 = 117$$

$$= 1.17 \times 10^2$$

$$22Z-62 = 0.000280$$

$$= 2.80 \times 10^{-4}$$

$$22Z-63 = 4.03 \times 10^{19}$$

$$22Z-64 = 8.09 \times 10^{-9}$$

$$22Z-65 = -1.09$$

$$= -1.09 \times 10^0$$

$$22Z-66 = 1.21$$

$$= 1.21 \times 10^0$$

$$22Z-67 = 1.77$$

$$= 1.77 \times 10^0$$

$$22Z-68 = -0.000294$$

$$= -2.94 \times 10^{-4}$$

$$22Z-69 = -1.07$$

$$= -1.07 \times 10^0$$

$$22Z-70 = 545$$

$$= 5.45 \times 10^2$$

$$22Z-71 = 148$$

$$= 1.48 \times 10^2$$

$$22Z-72 = 3.08$$

$$= 3.08 \times 10^0$$

$$22Z-73 = 0.884$$

$$= 8.84 \times 10^{-1}$$

$$22Z-74 = 66600$$

$$= 6.66 \times 10^4$$

$$22Z-75 = 0.00824$$

$$= 8.24 \times 10^{-3}$$

$$22Z-76 = -0.692$$

$$= -6.92 \times 10^{-1}$$

$$22Z-77 = 2980$$

$$= 2.98 \times 10^3$$

$$22Z-78 = 2.36$$

$$= 2.36 \times 10^0$$

$$22Z-79 = 113000$$

$$= 1.13 \times 10^5$$

$$22Z-80 = 0.509$$

$$= 5.09 \times 10^{-1}$$