

Name: _____

RISING 7th HONORS MATH

Date: _____

Summer Math Assignment

For full credit, show all work.

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Evaluate the expression for the given value(s) of the variable(s).			
1) $m - 8$ when $m = 12$	2) $11y$ when $y = 5$	3) $a \div (b - 4)$ when $a = 24$ and $b = 7$	
4) Describe the pattern. Then find the next three numbers: 3, 9, 27, 81, _____, _____, _____			
5) Find the <u>perimeter and area</u> of a rectangle that has a length of 7 feet and a width of 4 feet.			
Evaluate the expression.			
6) $23 - (9 - 5)^2$	7) $\frac{17 - 8}{6 + 12}$	8) $52 \div (13 \times 2)$	
Find the sum, difference, product, or quotient.			
9) $3.24 + 5.48$	10) $21.73 - 14.87$	11) 2.4×0.125	12) $15.3 \div 0.09$

For full credit, show all work.

<p>13) Write the number in scientific notation. 61,500 =</p>			
<p>Complete the statement using $<$, $>$, or $+$.</p>			
<p>14) 17.1 g ____ 1.71 mg</p>	<p>15) 6.3 cm ____ 63 mm</p>	<p>16) 1250 mL ____ 12.5 kL</p>	
<p>17) Find the mean, median, mode, and range of the data: 23, 19, 32, 28, 17, 21, 28</p>			
<p>Mean:</p>	<p>Median:</p>	<p>Mode:</p>	<p>Range:</p>
<p>18) Find the mean, median, mode, and range of the data: 5.5, 6.3, 4.7, 4.6, 4.6, 7.1, 6.3, 7.4, 6, 7.5</p>			
<p>Mean:</p>	<p>Median:</p>	<p>Mode:</p>	<p>Range:</p>
<p>19) In a survey that asked students how they used their free time, 32 said watching TV, 41 said talking on phone, 24 said playing video games, and 15 said reading. Use this information to make a bar graph.</p>			

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Tell whether the number is prime or composite. Then write all the factors of the number.

20) 47

21) 81

22) Use a factor tree to write the prime factorization of the numbers. Then find the GCF and the LCM of the numbers
45, 150

Complete the statement using $<$, $>$, or $=$.

23) $7/12$ _____ $2/3$

24) $7/10$ _____ $11/15$

Write the decimal as a fraction or mixed number.

25) 0.04

26) 2.35

Find the sum, difference, product, or quotient.

27) $\frac{11}{16} + \frac{3}{4}$

28) $7\frac{2}{5} - 4\frac{7}{10}$

29) $2\frac{1}{3} \cdot 3\frac{3}{4}$

30) $\frac{7}{12} \div \frac{14}{15}$

For full credit, show all work.

Complete the statement.			
31) 8 pt = _____ c		32) 23 qt = _____ gal _____ qt	
Find the sum or difference:			
33) $\begin{array}{r} 8 \text{ ft } 5 \text{ in} \\ + 4 \text{ ft } 9 \text{ in} \\ \hline \end{array}$		34) $\begin{array}{r} 6 \text{ c } 4 \text{ fl oz} \\ - 3 \text{ c } 5 \text{ fl oz} \\ \hline \end{array}$	
35) Order the integers from least to greatest: -6, 3, -4, 0, -11, 9			
36) Write the integer that represents a loss of 52 pounds. Then write the opposite of that number. _____ and _____			
Find the sum, difference, product, or quotient.			
37) $-11 + (-17)$	38) $21 - 32$	39) $10(-3)$	40) $-54 \div (-6)$
Evaluate the expression.			
41) $-5 * 8 * (1/5)$		42) $(1/3)(1.3) + (1/3)(1.7)$	

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43) Find the length, width, and area of the rectangle formed by the points R(-2, 3), S(4, 3), T(4, -1), and U(-2, -1).

Write the verbal sentence as an equation. Let x represent the number.

44) 7 less than a number is 15

45) 3 times the sum of a number and 2 is 12

Simplify the expression.

46) $4x - 8 - 7x - 3$

47) $17x + 3(4x - 5)$

48) $5(3x + 1) - 8(2x + 3)$

Solve the equation.

49) $x - 4 = -2$

50) $(\frac{2}{3})x = -10$

51) $4x - 2 = 7$

52) $-9 = -9(2x - 3)$

For full credit, show all work.

Solve the inequality.		
53) $15 > x + 8$	54) $-7x \leq 21$	
55) Determine which package of laundry soap is the better buy: 65 ounces for \$ 6.99 OR 120 ounces for \$ 12.99		
Solve the proportion.		
56) $X / 5 = 3 / 7.5$	57) $12 / 16 = x / 12$	
58) A map uses a scale of 1 in : 25 mi. If the distance between two cities on the map is 3.5 inches, what is the actual distance between the cities?		
Write the percent as a decimal or the decimal as a percent.		
59) 31.5 %	60) 210 %	61) 0.0125
62) What number is 45 % of 520?	63) 75 is what percent of 30?	

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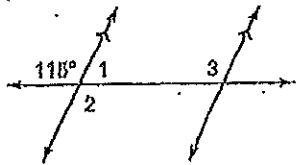
Identify the percent of change as an increase or a decrease.
 Then find the percent of change.

- (64) Original: 60
 New: 45
- (65) Original: 75
 New: 90
- (66) A store has a pair of boots, that originally cost \$56 marked down 25%. How much will the boots cost on sale?
- (67) You deposit \$1200 in an account. The annual interest rate is 3%. How long will it take you to earn \$108 in simple interest?

For the given angle measure, find the measure of a supplementary angle and the measure of a complementary angle, if possible.

- (68) 27°
- (69) 105°

In Exercises 70-72, use the diagram to find the unknown angle measures.

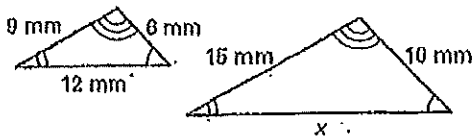


- (70) $m\angle 1$
- (71) $m\angle 2$
- (72) $m\angle 3$

Classify the triangle by its side lengths.

73. 5, 5, 5
74. 7, 3, 5
75. Find the sum of the angle measures in a hexagon.

76. Find the unknown length given that the triangles are similar.



77. The shadow cast by a house is 55 feet long. At the same time, a flagpole that is 15 feet tall casts a 25 foot long shadow. How tall is the house?

Answers

64. Increase or Decrease?
 % Change: _____
65. Increase or Decrease?
 % Change: _____
66. _____
67. _____
68. Supplementary: _____
 Complementary: _____
69. Supplementary: _____
 Complementary: _____
70. _____
71. _____
72. _____
73. _____
74. _____
75. _____
76. $x =$ _____
77. _____

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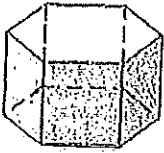
Find the circumference and the area of the circle with the given radius or diameter. Use 3.14 for π .

78. $r = 13$ m

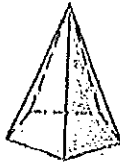
79. $d = 10$ in.

Classify the solid. Be as specific as possible.

80.



81.



82. Count the number of faces, edges, and vertices in the solid in Exercise 80.

Answers

78. $C =$ _____

$A =$ _____

79. $C =$ _____

$A =$ _____

80. _____

81. _____

82. Faces: _____

Edges: _____

Vertices: _____

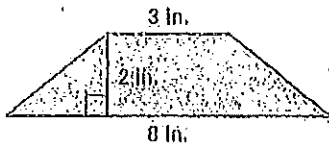
83. $A =$ _____

84. $A =$ _____

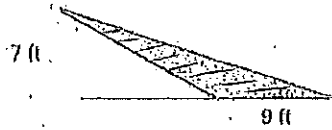
85. $A =$ _____

Find the area of the triangle, parallelogram, or trapezoid.

83.



84.



85.

