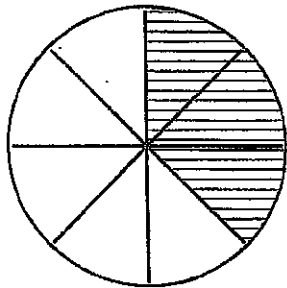


1. Find the missing number:  $G + 3 = 9$
2. What are the next three numbers in this sequence?  
 ..., 1350, 1300, 1250, 1200, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, ...
3. What is the greatest common factor of 45 and 18?
4. Is 568 divisible by both 9 and 3?
5. What term best describes the figure?



6. What percentage of the circle is shaded?

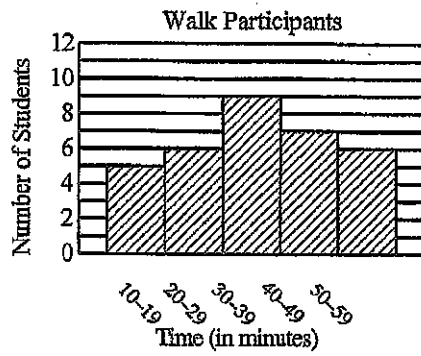


7. The improper fraction  $\frac{17}{12}$  equals what mixed number?
8. A box contained only milk chocolates and dark chocolates. If the ratio of dark chocolates to milk chocolates was 9 to 7, what fraction of the chocolates were milk chocolates?

Entering grade 7S

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9. The histogram below shows the number of minutes students walked during a fund-raising walk. How many students walked for 20-29 minutes?

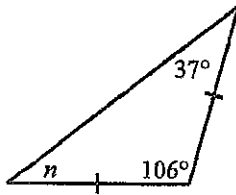


Solve:

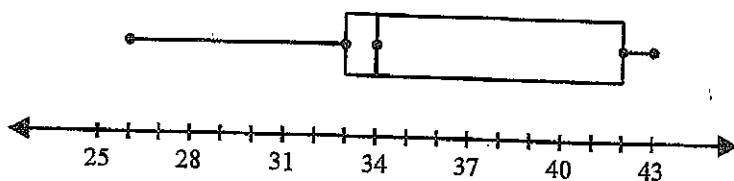
10.  $\frac{3}{7} = \frac{w}{35}$

11.  $\frac{2}{k} = \frac{8}{12}$

12. Find the missing angle measure.



13. Find the range and interquartile range of the data in the box-and-whisker plot.



14. Evaluate:  $6(b + c)$  when  $b$  is 6 and  $c$  is 3
15. Write  $\frac{13}{15}$  as a decimal number.
16. Write 0.095 as a fraction.
17. Write 4.01 as a mixed number.
18. Divide 7 by 0.73 and write the answer rounded to the nearest whole number.
19. It is  $1\frac{2}{5}$  miles to the end of the trail. If Adele walks to the end and back in 60 minutes, what is her average speed in miles per hour?
20. Write the number equivalent to  $\frac{10^7}{10^3}$  in standard form.
21. Write 3.69 billion in standard form.
22. Complete the table.

Fraction	Decimal	Percent
$\frac{7}{10}$		
	0.8	

23. Complete the table.

Fraction	Decimal	Percent
	0.68	

Simplify:

$$\begin{array}{r}
 24. \qquad \qquad \qquad 11 \text{ in.} \\
 + \ 3 \text{ yd } 2 \text{ ft } 9 \text{ in.} \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 25. \quad 1 \text{ hr } 25 \text{ min } 7 \text{ sec} \\
 + \ 8 \text{ hr } 32 \text{ min } 10 \text{ sec} \\
 \hline
 \end{array}$$

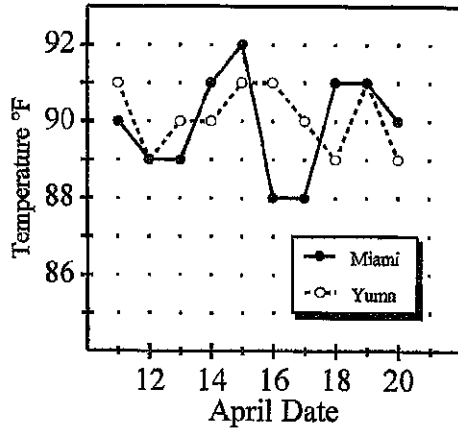
$$\begin{array}{r}
 26. \quad 7 \text{ yd } 2 \text{ ft} \\
 - \ 6 \text{ yd } 2 \text{ ft } 5 \text{ in.} \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 27. \quad \frac{\$552}{1 \text{ wk}} \cdot \frac{1 \text{ wk}}{5 \text{ days}} \cdot \frac{1 \text{ day}}{8 \text{ hr}}
 \end{array}$$

$$\begin{array}{r}
 28. \quad 6 \text{ yd } 2 \text{ ft} \\
 - \ 5 \text{ yd } 1 \text{ ft } 4 \text{ in.} \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 29. \quad 4 \text{ yd } 1 \text{ ft} \\
 - \ 3 \text{ yd } 2 \text{ ft } 7 \text{ in.} \\
 \hline
 \end{array}$$

30. The double-line graph below compares high temperatures in Yuma and Miami. Use the graph to determine all the dates on which Yuma's temperature was the same as Miami's.

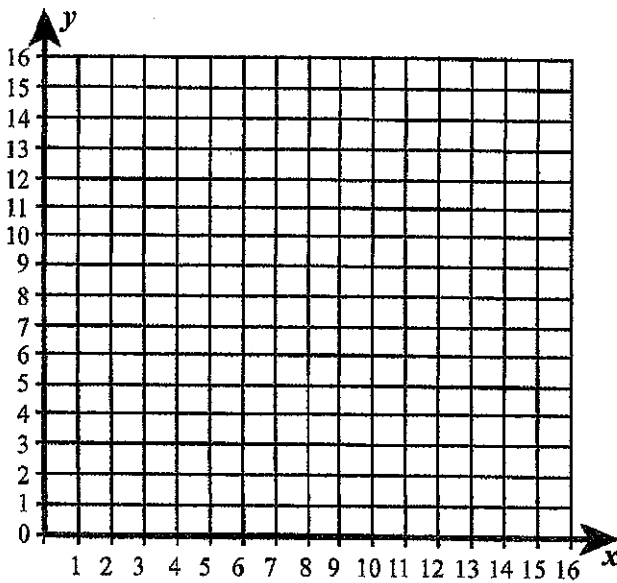


31. (a) Write forty-four million in scientific notation.  
 (b) Write  $2.13 \times 10^8$  in standard form.
32. On the north pole of Uranus winter lasts about 504 months. Write the measurement in scientific notation.

Simplify:

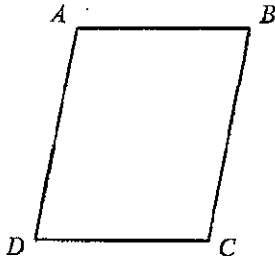
33.  $(5 \cdot 6)^2 - 5(6)^2$
34.  $36 \div 6 \times 6 + 5 - 3$
35. The ratio of good guys to bad guys was 3 to 1. If there were 60 good guys, how many bad guys were there?
36. The ratio of employees to computers in a certain company is 12 to 6. If there are 72 employees in the company, how many computers are there?

37. Eliza jumps rope for 17 minutes, counting each jump. If she jumps at a rate of 4200 jumps per hour, how many jumps does Eliza count?
  
38. Wayne ran a 400-meter race 3 times. His fastest time was 50.5 seconds. His slowest time was 52.7 seconds. If his average time was 51.5 seconds, what was his time for the other race?
  
39. Create a function table for the function  $y = 3x$ . Then sketch a graph of the function.

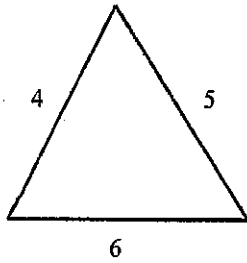


40. Simplify:  $3^{-3}$
  
41. (a) Write 0.0000248 in scientific notation.  
 (b) Write  $1.56 \times 10^{-6}$  in standard form.
  
42. The  $y$ -axis is a line of symmetry for a triangle. The coordinates of two of its vertices are  $(-3, 2)$  and  $(0, -3)$ . What are the coordinates of the third vertex?
  
43. Use arrows to show the addition problem on a number line.  
 $-6 + 3$

49.  $ABCD$  is a parallelogram. If  $m\angle DAB = 101^\circ$ , then  $m\angle BCD = \underline{\quad ? \quad}$ .



50. Classify the triangle by its sides.



Simplify:

51.  $3\{61 - [10^2 - 5(14 - 2)]\}$

52.  $15 \div 5 + \{2 \cdot 9 - [3 + (2 + 1)]\}$

53.  $(-6) + (+4) + (+6) + (-3)$

54.  $(-5) + 3 + (-2)$

44. Use arrows to show the addition problem on a number line.  $-2 + 11$

45. A ski group rented a bus to the ski slopes. Only  $\frac{7}{8}$  of the group went on the trip, and only  $\frac{3}{5}$  of those paid in advance. What part of the total group paid in advance?

46. Melvin ate  $\frac{1}{12}$  of the 36 fudge brownies. How many brownies did he eat?

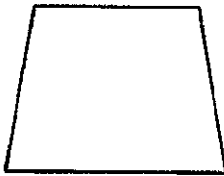
[A] 6

[B] 3

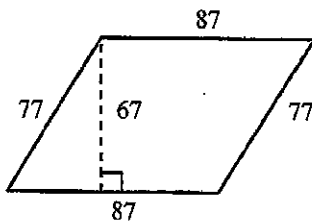
[C] 4

[D] 5

47. Name the quadrilateral and explain why that is the best name for the figure.

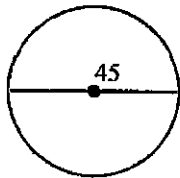


48. Find the area of the parallelogram. Dimensions are in inches.

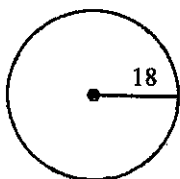




55. Find the circumference of each circle:  
(a) Use 3.14 for  $\pi$ . Dimensions are in inches.



- (b) Leave  $\pi$  as  $\pi$ . Dimensions are in meters.



56. The team's ratio of games won to games played was 2 to 9. If the team played 90 games, how many games did the team lose?
57. Use the name of a geometric solid to describe a straw.

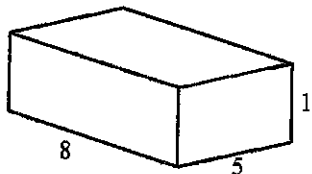
Simplify:

58.  $(-6) - (-8)$

59.  $(+2) - (-3)$

60. Write  $0.43 \times 10^6$  in scientific notation.

61. How many 1-cm sugar cubes would be needed to build a rectangular prism with the given dimensions? Dimensions are in centimeters.



Solve:

62.  $3.3 = x - 0.05$

63.  $3.2 = 0.4q$

64.  $52 + d = 75.2$

65. If 4 pounds of grapes costs \$1.34, how much would 13 pounds of grapes cost?

66. A car travels 96 miles on 8 gallons of gas. How many gallons will it need to travel 216 miles?

[A] 3.6 gal

[B] 17 gal

[C] 16 gal

[D] 18 gal

Simplify:

67.  $\frac{-15}{-3}$

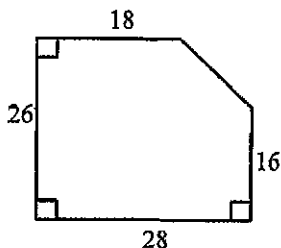
68.  $(+2)(+7)$

69. Three fourths of what number is 45?

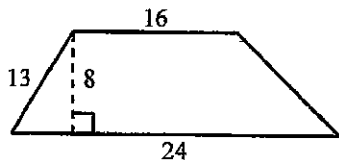
70. What decimal part of 84 is 42?

71. Thirty is 0.25 of what number?

72. Find the area of the figure. Dimensions are in inches.



73. Find the area of the trapezoid. Dimensions are in meters.



74. Simplify:  $\frac{61}{5\frac{3}{7}}$

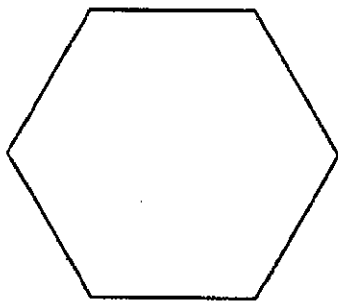
75. What percent of \$3.60 is \$0.36?

76. What percent of 30 is 6?

77. Graph on a number line:  $x < 5$

78. The coordinates of the vertices of  $\triangle ABC$  are  $A(-8, 3)$ ,  $B(-3, 3)$ , and  $C(-4, 6)$ . Graph  $\triangle ABC$  and its image after a reflection across the  $x$ -axis.

79. If the odds that you will win a prize in the raffle are 7 to 6, what is the probability that you will win a prize?
80. What is the probability that Glenda can roll a 2 and then a 6 with a number cube?
81. An attendance monitor counts 43 sixth-graders, 33 seventh-graders and 24 eighth-graders entering an assembly. What is the probability that a student at the assembly is in eighth grade? What is the probability that a student at the assembly is in seventh grade?
82. Last week, thirty percent of the 4000 fast-food customers ordered fries. How many of the customers did not order fries?
83. Simplify:  $(-9x)(-5xy^2)$
84. How many triangles are formed by drawing diagonals from one vertex in the polygon?

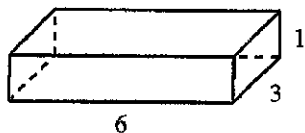


Solve:

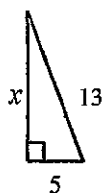
85.  $12\frac{1}{2}e = 175$

86.  $-9u = 1.8$

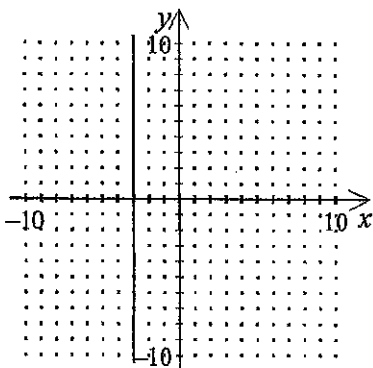
87. Find the volume of the right solid. Dimensions are in meters.



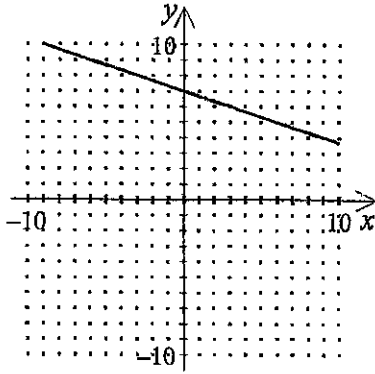
88. Use the Pythagorean theorem to find  $x$ .



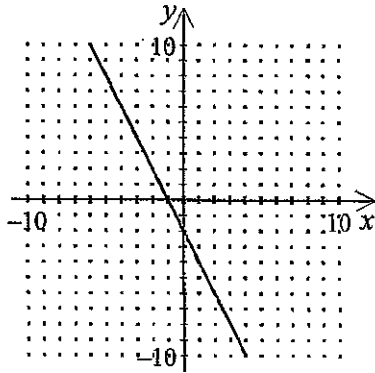
89. Determine the slope of the graphed line.



90. Find the slope of the graphed line.



91. What is the slope of the graphed line? [A]  $-\frac{1}{2}$  [B]  $\frac{1}{2}$  [C]  $-2$  [D]  $2$

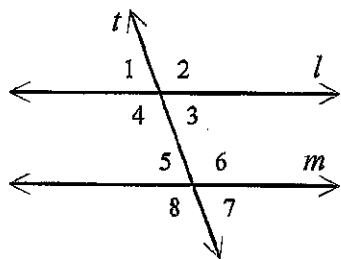


92. Louisa left \$1500 in an account that paid 9% interest compounded annually. Draw a table that shows the amount of interest earned after 1, 2, 3, 4, and 5 years.

93. What is the distance from  $-96$  to zero on a number line?

[A]  $|-96|$  [B]  $-95$  [C]  $-96$  [D]  $|-95|$

94. Transversal  $t$  intersects parallel lines  $l$  and  $m$  to form angles 1-8. If the measure of  $\angle 6$  is  $103^\circ$ , what is the measure of each of the other angles?



95. What is the distance between Dallas, Texas, and Memphis, Tennessee, if the map distance is 6 inches and the scale is 1 inch:75 miles?
96. Evaluate:  $\frac{f+g}{h}$  if  $f = -5$ ,  $g = -2$ , and  $h = -3$
97. Simplify:  $-3(1-5) - 2(-3)(-2) + \frac{(-5)(-4)}{2}$
98. An attendance monitor counts 43 sixth-graders, 33 seventh-graders and 24 eighth-graders entering an assembly. What is the probability that a student at the assembly is in eighth grade? What is the probability that a student at the assembly is in seventh grade?
99. A grocer can see 5 apples, 4 oranges and a pear in a basket full of unsorted fruit. Without knowing how much fruit is in the whole basket, what is the experimental probability that a clerk will select a pear from the basket?

100. Simplify:  $\frac{\frac{5}{8}}{\frac{4}{7}}$