

Winter Break 2020 Homework!

Name: \_\_\_\_\_

Date: \_\_\_\_\_

1. What is the solution of the equation below?

$$x + 8.63 = 11.001$$

- A.  $x = 19.631$       B.  $x = 10.138$   
C.  $x = 3.471$       D.  $x = 2.371$

2. Solve the equation below.

$$0.3r = 2.1$$

- A.  $r = 0.7$       B.  $r = 1.8$   
C.  $r = 7$       D.  $r = 18$

3. Kelly saves \$5 every week. Which expression represents the amount of money, in dollars, Kelly will save in  $w$  weeks?

- A.  $5 + w$     B.  $5 - w$     C.  $5w$     D.  $\frac{5}{w}$

4. Which two expressions are equivalent for any value of  $y$ ?

- A.  $3(3y + 3)$  and  $6y + 6$   
B.  $3(3y + 3)$  and  $9y + 6$   
C.  $9(y + 3)$  and  $12 + 9y$   
D.  $9(y + 3)$  and  $27 + 9y$

5. Which equation has the solution  $x = 2$ ?

- A.  $2x - 3 = 19$       B.  $3x + 2 = 8$   
C.  $4x - 4 = -4$       D.  $5x + 1 = 10$

6. Which expression is equivalent to the expression below?

$$g + g + g + g + g + g$$

- A.  $6 + g$     B.  $g^6$     C.  $6g$     D.  $\frac{g}{6}$

7. An equation is shown below.

$$12 - 9 + c = 12$$

What value of  $c$  makes the equation true?

- A. 0      B. 3      C. 9      D. 12

8. The relationship between Robert's age,  $r$ , and Julia's age,  $j$ , can be represented by the equation shown below.

$$r = j + 3$$

Which table of values represents the relationship between Robert's age and Julia's age?

A. **POSSIBLE AGES**

Robert's Age, $r$ (years)	Julia's Age, $j$ (years)
9	12
15	18
21	24

B. **POSSIBLE AGES**

Robert's Age, $r$ (years)	Julia's Age, $j$ (years)
9	3
15	5
21	7

C. **POSSIBLE AGES**

Robert's Age, $r$ (years)	Julia's Age, $j$ (years)
9	6
15	12
21	18

D. **POSSIBLE AGES**

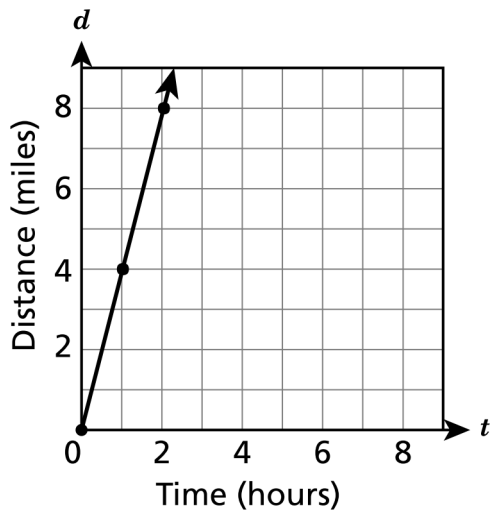
Robert's Age, $r$ (years)	Julia's Age, $j$ (years)
9	27
15	45
21	63

9. Joe walks on a treadmill at a constant rate. The equation below describes the relationship between  $t$ , the time he walks in hours, and  $d$ , the distance he walks in miles.

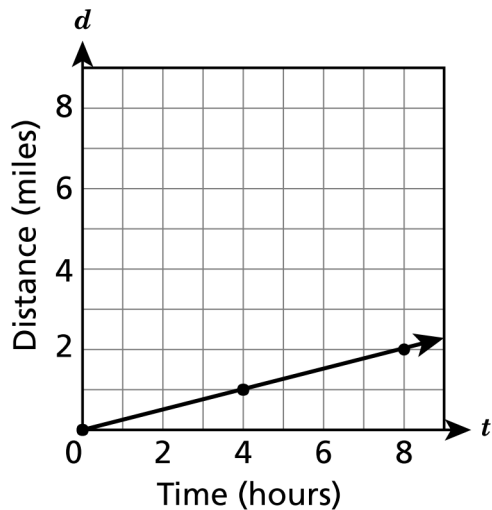
$$d = 4t$$

Which graph represents the relationship between the amount of time Joe walks and the distance he walks?

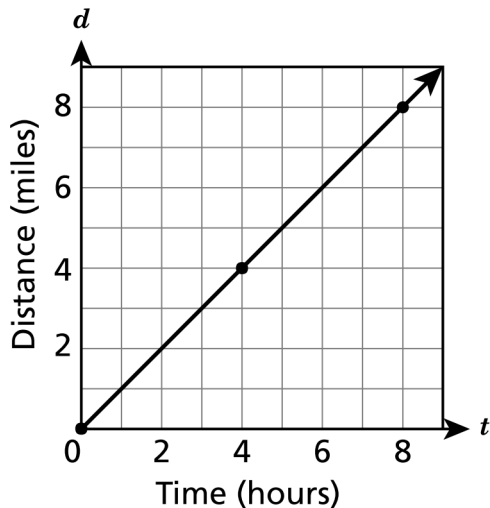
A.



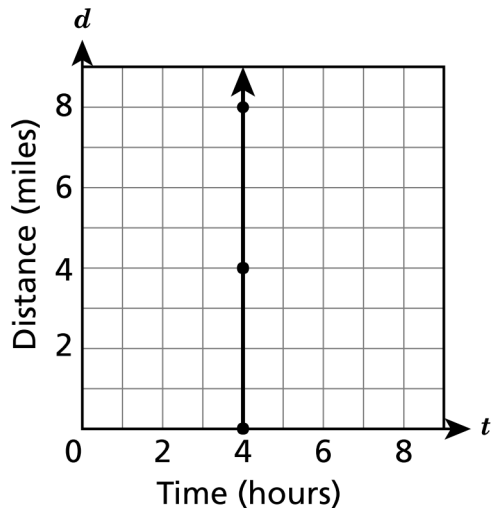
B.



C.



D.



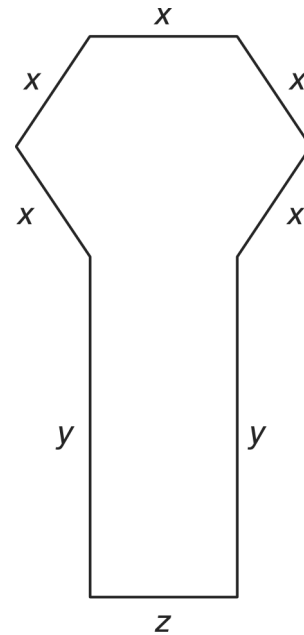
10. Which expression is equivalent to  $5(4x + 3) - 2x$ ?

- A.  $18x + 15$                       B.  $18x + 3$   
C.  $7x + 8$                         D.  $2x + 8$

11. Which two expressions are equivalent?

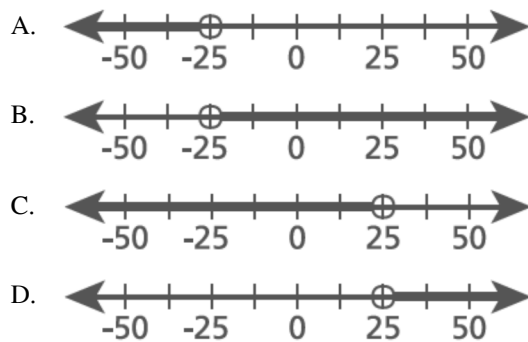
- A.  $x + x + x$  and  $x^3$   
B.  $14x + 10 - 2x$  and  $16x + 10$   
C.  $12x + 16x$  and  $4(3x + 4x)$   
D.  $12x^2 + 5x + 10$  and  $17x^2 + 10$

12. Which expression represents the perimeter of the figure below?



- A.  $5x + 2y$   
B.  $x + y + z$   
C.  $5x + 2y + z$   
D.  $(5 + 2 + 1)(x + y + z)$

13. Which number line shows a graph of the inequality  $x > -25$ ?



14. Which expression is equivalent to  $60 - 3y - 9$ ?

- A.  $3(17 - y)$       B.  $3(20 - y) - 3$   
 C.  $17(3 - y)$       D.  $20(3 - 3y) - 9$

15. Evaluate:

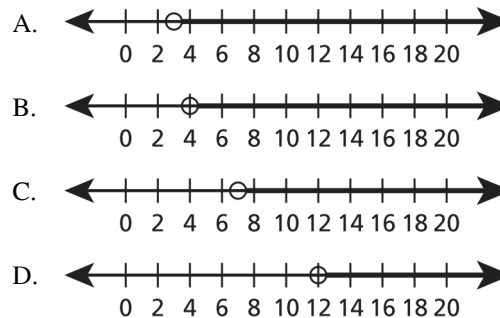
$$6^3 + 7 \times 4$$

- A. 100    B. 244    C. 757    D. 892

16. Which pair of expressions is equivalent?

- A.  $4(6x)$  and  $10x$       B.  $4(6x)$  and  $24x$   
 C.  $4x + 6x$  and  $10x^2$     D.  $4x + 6x$  and  $24x$

17. A printer makes more than 3 copies of a book every hour. Which graph represents the number of books made in 4 hours?



18. What is the solution to the equation below?

$$4w = \frac{2}{3}$$

- A.  $w = \frac{2}{12}$       B.  $w = \frac{2}{7}$   
 C.  $w = \frac{8}{3}$       D.  $w = 3\frac{1}{3}$

19. Which pair of expressions below is equivalent?

- A.  $x + y + x + y$  and  $2(x + y)$   
 B.  $5(2x - 3y)$  and  $10x - 3y$   
 C.  $4x - 5y$  and  $5y - 4x$   
 D.  $9x + 2y$  and  $11xy$

20. Which expression represents the phrase below?
- 8 less than the product of 6 and a number,  $x$
- A.  $8 - 6x$                       B.  $6x - 8$
- C.  $(6 + x) - 8$                 D.  $8 - (6 + x)$

21. Jason has a coupon for \$2.50 off any electronic book from an online book store. If the original price, in dollars, of an electronic book is  $p$  and the discounted price, in dollars, is  $d$ , which table shows the relationship between  $p$  and  $d$ ?

A. 

$p$	3.00	4.00	5.00	6.00
$d$	0.50	1.50	2.50	3.50

B. 

$p$	3.00	4.00	5.00	6.00
$d$	5.50	6.50	7.50	8.50

C. 

$p$	3.00	4.00	5.00	6.00
$d$	2.50	2.50	2.50	2.50

D. 

$p$	3.00	4.00	5.00	6.00
$d$	7.50	10.00	12.50	15.00

22. Which pair of expressions below are equivalent?
- A.  $7(2x)$  and  $9x$
- B.  $3x + 5x$  and  $15x$
- C.  $4(2x - 6)$  and  $8x - 24$
- D.  $x + x + x + x$  and  $x^4$

23. A shelf has four books on it. The weight, in pounds, of each of the four books on the shelf is listed below.

**2.5, 3.2, 2.7, 2.3**

Which inequality represents the weight,  $w$ , of any book chosen from the shelf?

- A.  $w > 2.3$                       B.  $w < 2.4$
- C.  $w > 3.2$                       D.  $w < 3.3$

24. The weight of an object on the moon,  $m$ , is about  $\frac{1}{6}$  of the object's weight on Earth,  $e$ .

Which equation represents the approximate weight of an object on the moon in terms of the object's weight on Earth?

- A.  $m = \frac{1}{6} + e$                       B.  $m = \frac{e}{6}$
- C.  $m = 6 + e$                       D.  $m = 6e$

25. The table below lists the coordinates of four points.

**COORDINATES**

$x$	$y$
1	5
2	7
3	9
4	11

If  $x$  represents any number in the first column, which expression can always be used to find the value of  $y$  in the second column?

- A.  $5x$             B.  $x + 2$         C.  $x + 4$         D.  $2x + 3$

26. Which expression is represented by the phrase “the square of  $y$  decreased by the quotient of 28 and 7”?

A.  $\frac{28}{7} - y^2$                       B.  $y^2 - \frac{28}{7}$   
 C.  $\frac{28}{7 - y^2}$                       D.  $\frac{28}{y^2 - 7}$

27. John’s friend told him that he could earn \$49 for handing out flyers at a local concert. John wants to calculate the hourly rate. If he works a total of 3.5 hours, the equation  $3.5x = 49$  can be used to determine his hourly rate. What would John’s hourly rate be, in dollars?

A. \$1.40                      B. \$14.00  
 C. \$45.50                      D. \$171.50

28. The Frenchtown Roller Rink charges a \$5 entrance fee and an hourly rate for roller skating. The total cost for roller skating depends on the number of hours a person skates. The table below represents the total cost of skating for different numbers of hours.

**ROLLER SKATING COST**

Number of Hours ( $h$ )	Total Cost in Dollars ( $c$ )
0	5
1	8
2	11
3	14
4	17

Which equation represents the relationship between the cost,  $c$ , and the number of hours,  $h$ ?

A.  $c = 8h$                       B.  $c = 5h + 3$   
 C.  $c = 2h + 7$                       D.  $c = 3h + 5$

29. Chakan worked at the warehouse after school. He earned \$9.25 per hour stacking boxes. Which equation correctly relates Chakan’s total earnings,  $d$ , to the number of hours he worked,  $h$ ?

A.  $d = 9.25h$                       B.  $h = 9.25d$   
 C.  $d = \frac{9.25}{h}$                       D.  $h = \frac{9.25}{d}$

30. Zelma buys  $p$  pounds of bananas for 40 cents per pound. She pays the clerk with a twenty-dollar bill. The clerk subtracts the total cost of the bananas from the twenty-dollar bill to determine the amount of change to give Zelma.

Which expression represents the amount of change Zelma should receive?

- A.  $p - 20$                       B.  $20 - 40p$   
C.  $20 - 0.40p$                 D.  $0.40p - 20$

31. What value of  $y$  makes the equation below true?

$$y + 2.9 = 11$$

- A. 8.1      B. 8.9      C. 9.1      D. 13.9

32. In which set do all of the values make the inequality  $2x - 1 < 10$  true?

- A. {10, 15, 20}                B. {5, 7, 9}  
C. {4, 6, 8}                    D. {2, 3, 4}

33. What is the value of the expression below?

$$2[3(4^2 + 1)] - 2^3$$

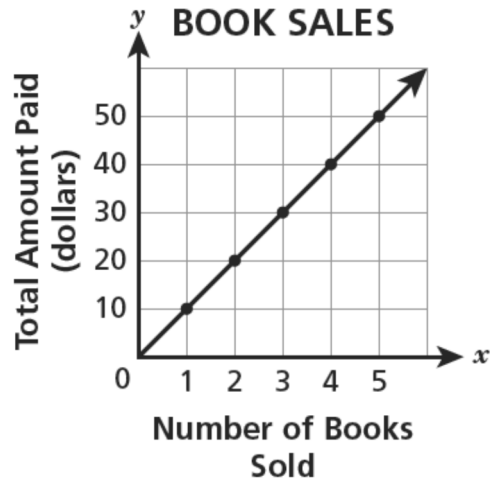
- A. 156      B. 110      C. 94      D. 48

34. A bookstore is selling books for \$10 each. Which graph shows the relationship between the number of books,  $x$ , the store sold and the total amount of money,  $y$ , paid from the book sales?

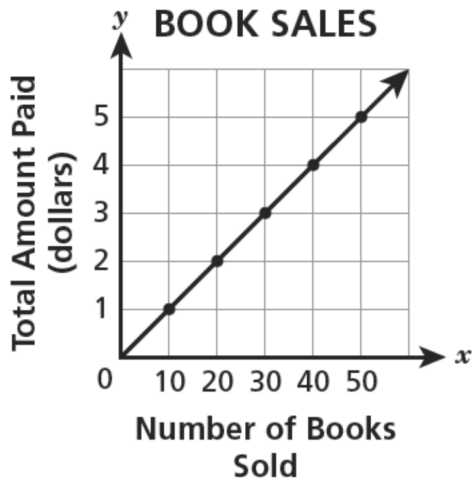
A.



B.



C.



D.



35. A carpenter built three bookcases, A, B, and C, to stand next to each other along a wall. The total length of the wall is 456 centimeters. The carpenter will build two more bookcases, D and E, along the same wall. These two bookcases will have equal widths. The widths of bookcases A, B, and C are shown in the table below.

**WIDTHS OF  
BOOKCASES**

Bookcase	Width (centimeters)
A	132
B	94
C	108
D	$w$
E	$w$

Write and solve an equation to determine  $w$ , the greatest possible width for bookcases D and E.

36. Which phrase is a description of  $2m + 7$ ?

- A. 7 more than 2 times  $m$
- B. 2 more than 7 times  $m$
- C. 2 times the sum of 7 and  $m$
- D. 7 times the sum of 2 and  $m$

37. George has \$23 to spend on art supplies. He wants to buy markers, paper, and glue. If the total cost of the markers and paper is more than \$14, which inequality represents the dollar amount,  $p$ , George can spend on glue?

- A.  $p < 9$
- B.  $p > 9$
- C.  $p < 37$
- D.  $p > 37$

38. A student formed a pattern in which each term is represented by a sum. The first four terms of the pattern are shown below.

$n$	Sum
1	1
2	$1 + 3$
3	$1 + 3 + 5$
4	$1 + 3 + 5 + 7$

Which expression can be used to determine the value of the sum in any term,  $n$ ?

- A.  $n^2$
- B.  $4n$
- C.  $n + 3$
- D.  $2^n$

39. Which expression is equivalent to  $5(6x + 3y)$ ?

- A.  $11x + 3y$
- B.  $11x + 8y$
- C.  $30x + 3y$
- D.  $30x + 15y$

40. Which pair of expressions is equivalent for any variable value greater than zero?

- A.  $3(x + 2)$  and  $3x + 2$   
 B.  $4d + 2e$  and  $8d + e$   
 C.  $f + f + f + g$  and  $3fg$   
 D.  $b + b + 3c$  and  $2b + 3c$

41. The surface area,  $S$ , of a right rectangular prism with length  $l$ , width  $w$ , and height  $h$  can be found using the formula below.

$$S = 2(lw + wh + hl)$$

What is the surface area, in square inches, of a prism with a length of 12 inches, a width of 9 inches, and a height of 2 inches?

- A. 300    B. 258    C. 150    D. 92

42. In 2010, Kim-Ly earned \$17.50 for 2 hours of work. Which table shows the relationship between the number of hours worked and Kim-Ly's total earnings, if her rate per hour is constant?

A.

Number of Hours	Total Earnings
1	\$17.50
2	\$35.00
3	\$52.50
4	\$70.00

B.

Number of Hours	Total Earnings
1	\$17.50
2	\$17.50
3	\$17.50
4	\$17.50

C.

Number of Hours	Total Earnings
1	\$16.50
2	\$17.50
3	\$18.50
4	\$19.50

D.

Number of Hours	Total Earnings
1	\$8.50
2	\$17.50
3	\$26.25
4	\$35.00

43. Rosa has a goal of running a total of 100 miles this month. Each day that she ran, she ran 5 miles. Which expression could Rosa use to determine how many miles she has left to run after running for  $d$  days?

A.  $100 - 5d$                       B.  $5d + 100$   
C.  $\frac{100}{5d}$                               D.  $5d$

44. Which value or values for the variable  $c$  from the set below will make  $5.6 + 0.4c \leq 6c$  true?

$\{0, 0.875, 1, 2.5\}$

A. only 2.5  
B. 1 and 2.5  
C. 0.875, 1, and 2.5  
D. all values in the set

45. The two expressions below are equivalent.

$$y(2.5 + 7) + y - 2$$
$$10.5y - 2$$

Which statement *best* explains why the expressions are equivalent?

- A. The expressions have the same value for any value of  $y$ .  
B. The expressions have the same value for only whole number values of  $y$ .  
C. The expressions have the same value only when  $y$  is an odd number.  
D. The expressions have the same value only when  $y$  is an even number.

46. Which quantity could go in the blank to make the equation below true?

$$x + 2x + \underline{\hspace{1cm}} = 5x$$

A. 2                      B. 3                      C.  $2x$                       D.  $3x$

47. A sandwich shop sells sandwiches for \$5.95 each, including tax. The shop received a total of \$71.40 from the sales of sandwiches one afternoon. Which equation can be used to determine the number of sandwiches,  $x$ , sold by the sandwich shop that afternoon?

A.  $5.95 + x = 71.40$                       B.  $5.95 \div 71.40 = x$   
C.  $5.95x = 71.40$                               D.  $5.95 \div x = 71.40$

48. The set of numbers 1, 7, 11, and 36 contains values for  $m$ . What value of  $m$  makes the equation below true?

$$4m + 8 = 36$$

- A. 1      B. 7      C. 11      D. 36

49. What is the value of the expression below when  $c = 5$  and  $d = 4$ ?

$$6c^2 - 5d + 8$$

- A. 48      B. 79      C. 138      D. 888

50. Which expression is equivalent to  $3(6m) + m$ ?

- A.  $19m$                       B.  $21m$   
C.  $7m + 3$                   D.  $18m + 6m^2$

51. Nadia bought 5 tickets to attend a spaghetti supper fundraiser at her school. The equation  $5x = 32.50$  can be used to find  $x$ , the cost of each ticket in dollars. Which equation represents the cost of each ticket?

- A.  $x = \frac{32.50}{5}$                   B.  $x = 32.50(5)$   
C.  $x = 32.50 - 5$           D.  $x = 32.50 + 5$

52. What is the value of the expression below when  $z = 7$ ?

$$3z - 3$$

- A. 12      B. 18      C. 21      D. 34

53. Which equation is true when  $n = 4$ ?

- A.  $2n = 6$                       B.  $n + 3 = 7$   
C.  $9 - n = 13$                   D.  $\frac{n}{12} = 3$

54. Which expression is equivalent to  $5(d + 1)$ ?

- A.  $5d + 5$                       B.  $5d + 1$   
C.  $d + 5$                         D.  $d + 6$

55. Which expression is equivalent to  $8x - 2y + x + x$ ?

- A.  $4x$                               B.  $8x$   
C.  $6x - 2y$                       D.  $10x - 2y$

56. Which situation can be represented by the expression  $1.3x$ ?
- A. the total cost of an item that is  $x$  dollars more than \$1.30
  - B. the area of a rectangle with side lengths 1.3 and  $x$
  - C. the amount of change when \$1.30 is used to pay for an item costing  $x$  dollars
  - D. the number of square feet in each lot when 1.3 acres is partitioned into  $x$  equal sections

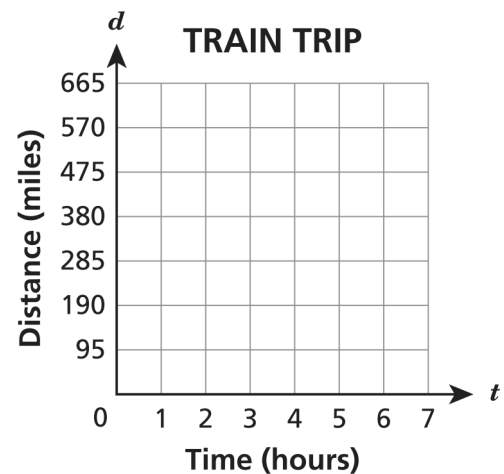
57. A train was traveling at a constant speed. The table below shows the distance, in miles, the train traveled for the first 4 hours.

**TRAIN TRIP**

Time (hours)	Distance (miles)
1	95
2	190
3	285
4	380

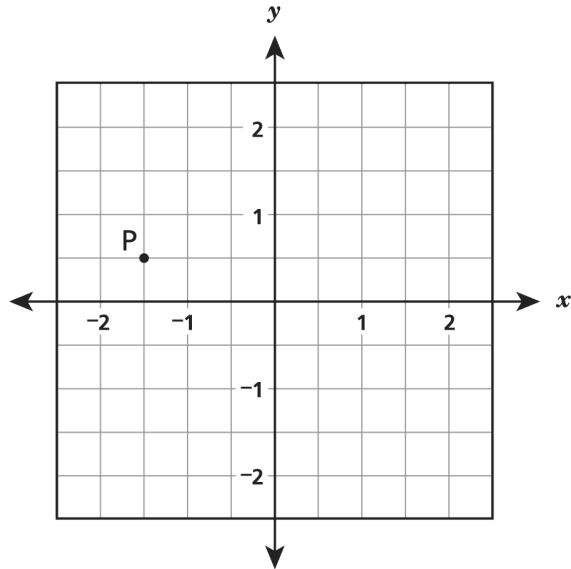
Write an equation to represent the relationship between  $t$ , the time, and  $d$ , the total distance traveled by the train.

On the grid below, draw a graph of the relationship between  $t$  and  $d$  for a trip that lasted from 0 to 7 hours.



If the train was traveling nonstop, how many miles would it travel in 5.5 hours?

58. What is the  $x$ -coordinate of point  $P$  on the coordinate grid?



- A.  $-1\frac{1}{2}$     B.  $-\frac{1}{2}$     C.  $\frac{1}{2}$     D.  $1\frac{1}{2}$

59. What is the value of  $\frac{5}{6} \div \frac{3}{7}$ ?

- A.  $\frac{15}{42}$     B.  $\frac{18}{35}$     C.  $\frac{35}{18}$     D.  $\frac{42}{15}$

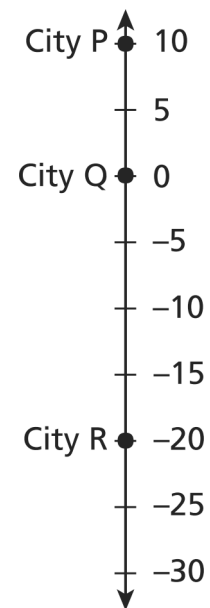
60. What is the greatest common factor of 56 and 92?

- A. 2    B. 4    C. 7    D. 8

61. What is the greatest common factor of 36 and 90?

- A. 6    B. 18    C. 36    D. 180

62. The elevations, in feet, of three cities are marked on the number line shown below.



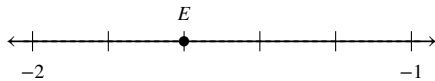
The point O on the number line represents sea level. Which statement must be true?

- A. City P and City Q are above sea level.  
 B. City Q and City R are below sea level.  
 C. City P is above sea level and City Q is below sea level.  
 D. City P is above sea level and City R is below sea level.

63. The length of a rectangular parking lot at the airport is  $\frac{2}{3}$  mile. If the area is  $\frac{1}{2}$  square mile, what is the width of the parking lot?

A.  $\frac{1}{3}$  mile                      B.  $\frac{3}{4}$  mile  
C.  $1\frac{1}{6}$  mile                      D.  $1\frac{1}{3}$  mile

64. Which number best represents the location of point  $E$  on the number line below?

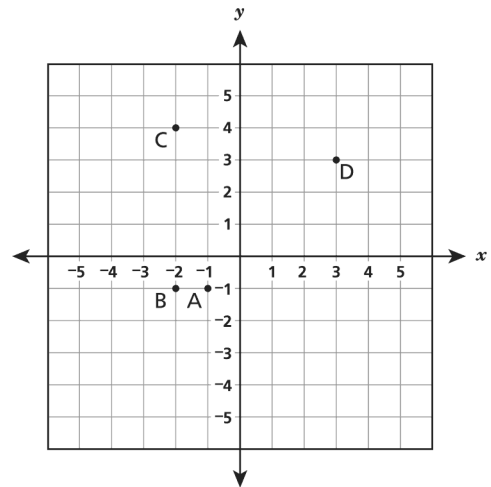


A. -1.8    B. -1.6    C. -1.5    D. -1.3

65. The coordinates of point  $A$  are  $(-6, 4)$ . The coordinates of point  $B$  are  $(3, 4)$ . Which expression represents the distance, in units, between points  $A$  and  $B$ ?

A.  $|-6| + |3|$                       B.  $|3| - |-6|$   
C.  $|-6| + |-4|$                       D.  $|4| - |-6|$

66. Point  $G$  is the point  $(3, -1)$ .



Which point is 5 units from point  $G$ ?

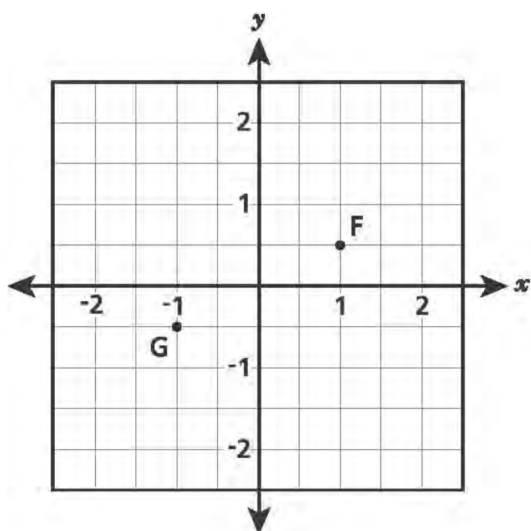
A. point  $A$                       B. point  $B$   
C. point  $C$                       D. point  $D$

67. An art teacher had  $\frac{2}{3}$  gallon of paint to pour into containers. If he poured  $\frac{1}{8}$  gallon of paint into each container until he ran out of paint, how many containers had paint in them, including the one that was partially filled?

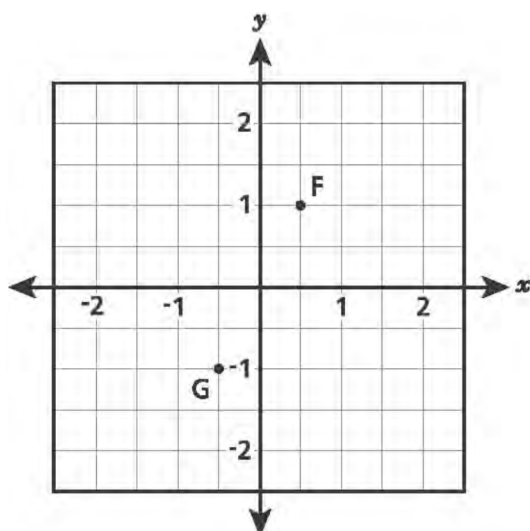
A. 1                      B. 3                      C. 5                      D. 6

68. The coordinates of point  $F$  are  $(1, 0.5)$  and the coordinates of point  $G$  are  $(-1, -0.5)$ . Which coordinate plane below correctly shows the locations of points  $F$  and  $G$ ?

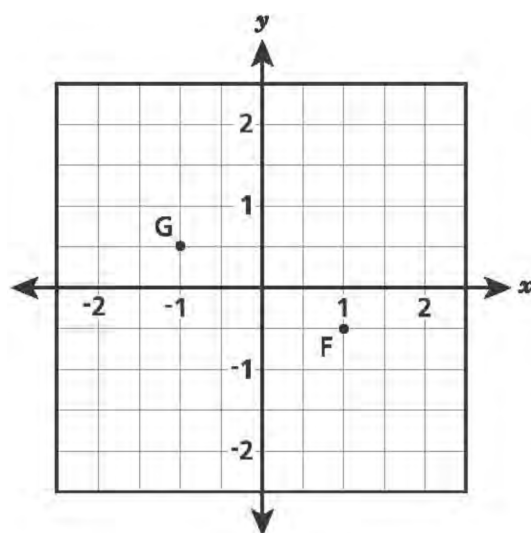
A.



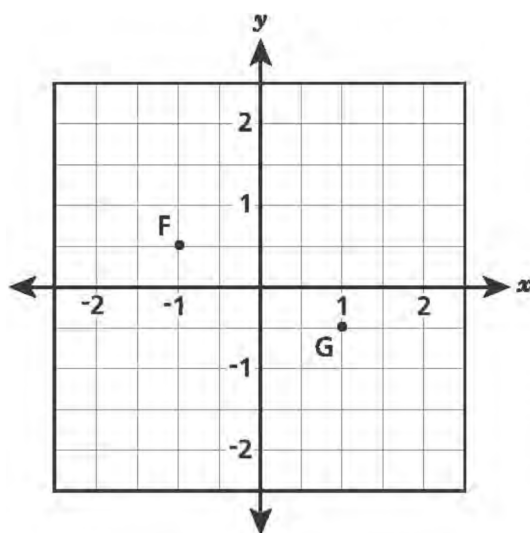
B.



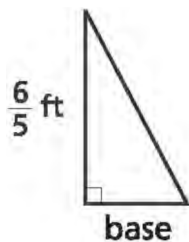
C.



D.



69. The area of the triangle below is  $\frac{2}{5}$  square foot.

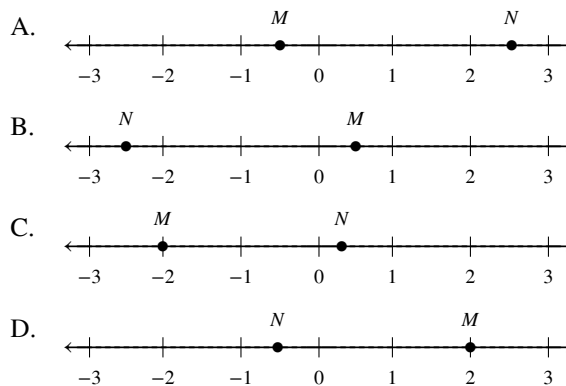


What is the length, in feet, of the base of the triangle?

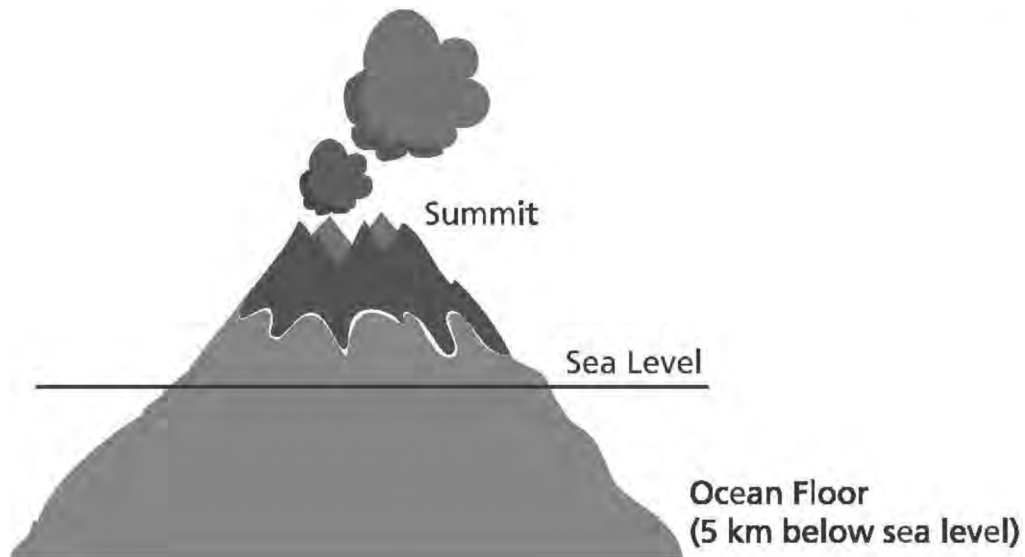
- A.  $\frac{24}{25}$       B.  $\frac{25}{24}$       C.  $\frac{2}{3}$       D.  $\frac{3}{2}$

70. Point  $M$  represents the opposite of  $-\frac{1}{2}$  and point  $N$  represents the opposite of  $\frac{5}{2}$ .

Which number line correctly shows points  $M$  and  $N$ ?



71. The summit of a volcano is 10 kilometers (km) above the ocean floor, as shown below.



If the ocean floor has an elevation of  $-5$  kilometers, which statement describes the elevation of sea level and the summit?

- A. The elevation of sea level is 0 km and the elevation of the summit is 5 km.
- B. The elevation of sea level is 5 km and the elevation of the summit is 5 km.
- C. The elevation of sea level is 0 km and the elevation of the summit is 10 km.
- D. The elevation of sea level is 5 km and the elevation of the summit is 10 km.

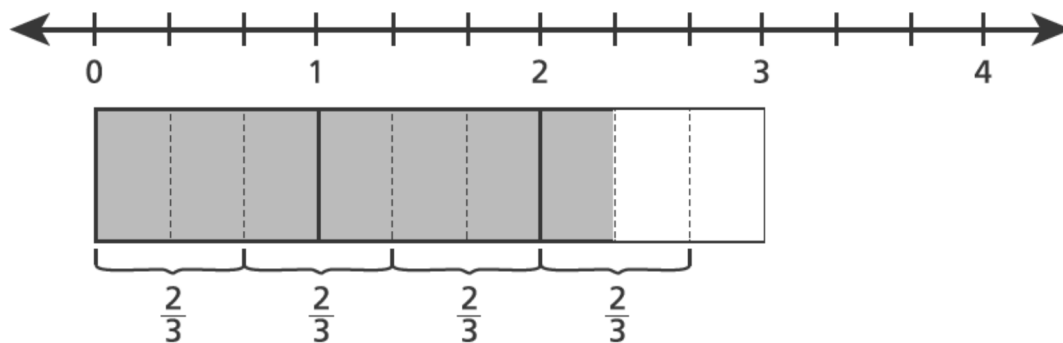
72. Point  $A$  and point  $B$  are placed on a number line. Point  $A$  is located at  $-20$  and point  $B$  is 5 less than point  $A$ . Which statement about point  $B$  is true?

- A. It is located at  $-25$  and is to the right of point  $A$  on the number line.
- B. It is located at  $-15$  and is to the right of point  $A$  on the number line.
- C. It is located at  $-25$  and is to the left of point  $A$  on the number line.
- D. It is located at  $-15$  and is to the left of point  $A$  on the number line.

73. Maddy had a piece of ribbon that was  $3\frac{1}{2}$  yards long. She used this ribbon to make bows. Each bow was made from a piece of the ribbon that was  $\frac{3}{4}$  yard long. This situation can be represented by the equation  $3\frac{1}{2} \div \frac{3}{4} = 4\frac{2}{3}$ . Which statement best describes what the quotient  $4\frac{2}{3}$  represents in the situation above?

- A. Maddy had bows that were each  $4\frac{2}{3}$  yards long.
- B. Maddy had  $4\frac{2}{3}$  yards of ribbon left after making the bows.
- C. Maddy made 4 bows from the piece of ribbon and had  $\frac{2}{3}$  of a yard left.
- D. Maddy made 4 bows from the piece of ribbon and had enough left for  $\frac{2}{3}$  of a bow.

74. The model below represents a division problem.



Which equation is represented by the model?

- A.  $2\frac{1}{3} \div \frac{2}{3} = 3\frac{1}{2}$
- B.  $2\frac{1}{3} \div \frac{2}{3} = 3\frac{1}{3}$
- C.  $\frac{7}{1} \div \frac{1}{3} = 2\frac{1}{3}$
- D.  $\frac{2}{3} \div 3\frac{1}{2} = 2\frac{1}{3}$

75. Jason will use a  $3\frac{1}{3}$ -gallon pitcher to fill an empty  $\frac{3}{4}$ -gallon water jug. How much water will he need in order to completely fill the water jug?

A. between 1 and 2 full pitchers  
 B. between 2 and 3 full pitchers  
 C. about  $\frac{1}{2}$  of a full pitcher  
 D. about  $\frac{1}{4}$  of a full pitcher

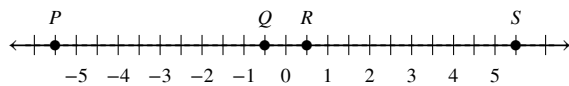
76. What is the greatest common factor of 42 and 84?

A. 7      B. 21      C. 42      D. 84

77. What is the least common multiple of 4 and 10?

A. 14      B. 20      C. 40      D. 60

78. Which point on the number line below represents the number opposite the number  $-5\frac{1}{2}$ ?



A. point P                      B. point Q  
 C. point R                      D. point S

79. The inequality below compares two rational numbers.

$$-\frac{8}{18} > -\frac{17}{27}$$

If the two numbers were plotted as values on a horizontal number line, which statement would be true?

- A. Both numbers lie to the right of 0, and  $-\frac{8}{18}$  lies to the left of  $-\frac{17}{27}$ .  
 B. Both numbers lie to the left of 0, and  $-\frac{8}{18}$  lies to the left of  $-\frac{17}{27}$ .  
 C. Both numbers lie to the right of 0, and  $-\frac{8}{18}$  lies to the right of  $-\frac{17}{27}$ .  
 D. Both numbers lie to the left of 0, and  $-\frac{8}{18}$  lies to the right of  $-\frac{17}{27}$ .

80. Two whole numbers have a least common multiple of 60.

- Each number is less than or equal to 12.
- The greatest common factor of the two numbers is 2.

What are the two numbers?

- A. 6 and 10                      B. 5 and 12  
 C. 10 and 12                      D. 12 and 15

81. Machines S and T were both cleaned this week.

- Machine S is cleaned every 12 weeks.
- Machine T is cleaned every 8 weeks.

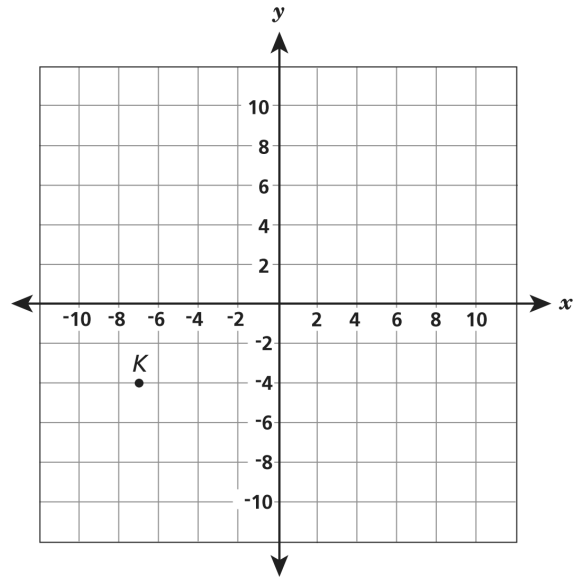
What is the *fewest* number of weeks that will pass before both machines are cleaned again in the same week?

- A. 16      B. 24      C. 36      D. 48

82. The area of a rectangular city park is  $\frac{25}{54}$  square miles. The length of the park is  $\frac{5}{9}$  mile. What is the width, in miles, of the park?

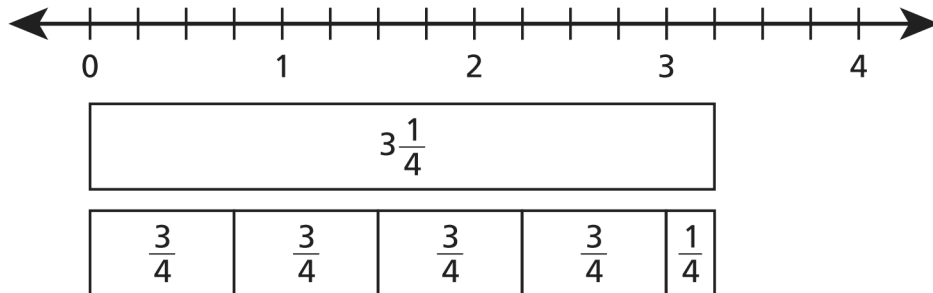
- A.  $\frac{4}{9}$       B.  $\frac{5}{6}$       C.  $1\frac{1}{54}$       D.  $1\frac{1}{5}$

83. What coordinates best represent the location of point  $K$  on the coordinate plane below?



- A.  $(-7, -4)$       B.  $(-7, 4)$   
C.  $(-4, -7)$       D.  $(-4, 7)$

84. Which expression is modeled by the diagram below?

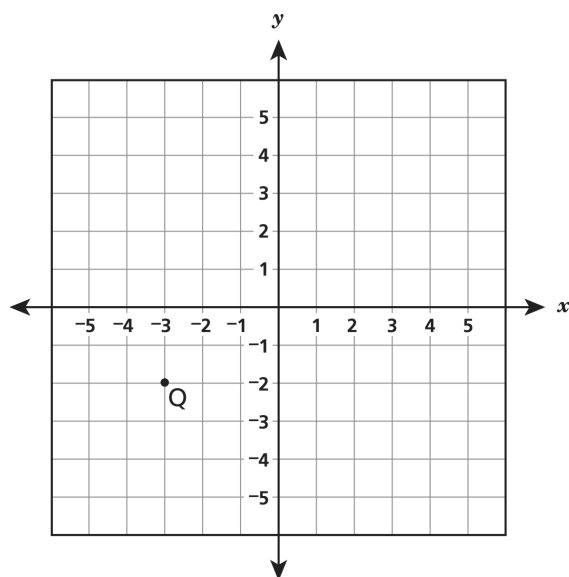


- A.  $3\frac{1}{4} \div \frac{3}{4}$       B.  $\frac{3}{4} \div 3\frac{1}{4}$       C.  $3 \div \frac{1}{4}$       D.  $\frac{1}{4} \div 3$

85. The coordinates of the vertices of a rectangle are  $(-2, 3)$ ,  $(4, 3)$ ,  $(4, -4)$ , and  $(-2, -4)$ . What are the dimensions of the rectangle?

A. 1 unit by 2 units      B. 1 unit by 6 units  
C. 7 units by 2 units      D. 7 units by 6 units

86. Point Q is shown on the coordinate grid below.



Which statement correctly describes the relationship between the point  $(-3, 2)$  and point Q?

A. It is a reflection across the  $x$ -axis.  
B. It is a reflection across the  $y$ -axis.  
C. They are 6 units apart.  
D. They are 2 units apart.

87. Carol has  $1\frac{5}{8}$  cups of yogurt to make smoothies. Each smoothie uses  $\frac{1}{3}$  cup of yogurt.

What is the maximum number of smoothies that Carol can make with the yogurt?

A. 1      B. 4      C. 5      D. 7

88. Keith wants to plot  $-8$  and  $-9$  on a number line. Which statement is true?

A. Keith should plot  $-8$  to the left of  $-9$  because  $-8 < -9$ .  
B. Keith should plot  $-8$  to the left of  $-9$  because  $-8 > -9$ .  
C. Keith should plot  $-9$  to the left of  $-8$  because  $-9 < -8$ .  
D. Keith should plot  $-9$  to the left of  $-8$  because  $-9 > -8$ .

89. Omar has  $2\frac{3}{4}$  cups of dough to make dumplings. If he uses  $\frac{3}{16}$  cup of dough for each dumpling, how many whole dumplings can Omar make?

A. 13      B. 14      C. 15      D. 16

90. Wyatt hiked 6 miles in 2 hours. At this same rate, what is the total number of miles Wyatt could hike in 9 hours?

A. 3      B. 7      C. 21      D. 27