

## Practice Test 1

Use answer sheet provided in the back of this book.

1. "y to the 4th power" is what mathematical expression?

a.  $4y$   
b.  $y^4$   
c.  $4y$   
d.  $4 \cdot y$

2. 12,400,000 pounds of rice were produced in one year. Write this amount in scientific notation.

a.  $1.24 \times 10^7$   
b.  $124 \times 10^5$   
c.  $1.24 \times 10^{-7}$   
d.  $12 \times 10^8$

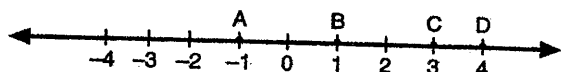
3. What is the best estimate of the diameter of a circle with a circumference of 20 cm?

a. 7 cm  
b. 4 cm  
c. 5 cm  
d. 6 cm

4. Which fraction is a repeating fraction?

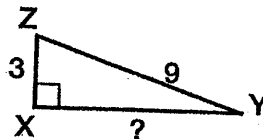
a.  $\frac{1}{2}$   
b.  $\frac{1}{3}$   
c.  $\frac{1}{5}$   
d.  $\frac{1}{4}$

5. What point is equal to  $|-1|$ ?



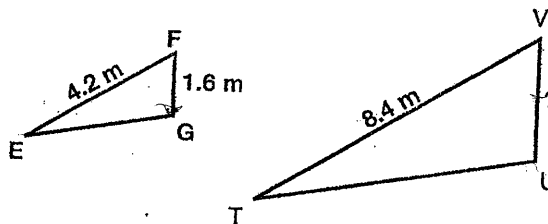
a. A  
b. B  
c. C  
d. D

6. Which represents the length of  $\overline{XY}$ ?



a.  $9^2 + 3^2$   
b.  $9^2 - 3^2$   
c.  $\sqrt{9^2 + 3^2}$   
d.  $\sqrt{9^2 - 3^2}$

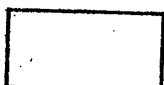



7. These triangles are similar. What is the length of  $\overline{UV}$ ?



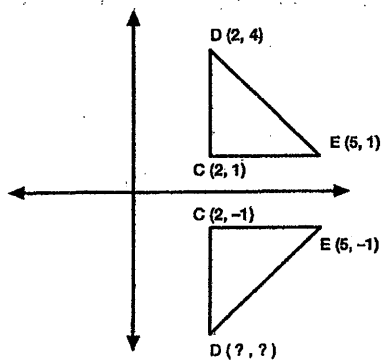
a. 3.2 m  
b. .8 m  
c. 2 m  
d. 2.1 m

8. What would be the top view of this juice container?

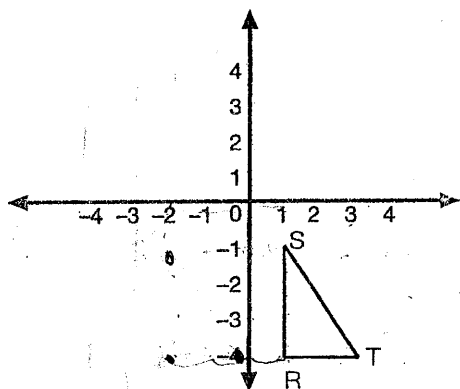


a.  b.   
c.  d. 

9. Figure CDE is reflected through the x-axis. What are the new coordinates for point D?



- a.  $(-2, 4)$
  - b.  $(2, 4)$
  - c.  $(-2, -4)$
  - d.  $(2, -4)$
10. Which set of ordered pairs would be the points for RST if it is moved 3 units to the left?

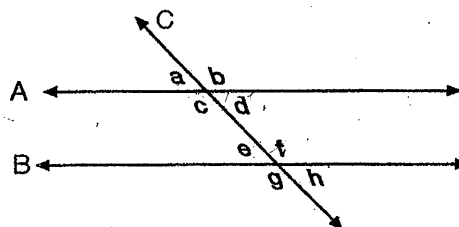


- a.  $R(4, -1), S(4, -1), T(6, -1)$
- b.  $R(1, -2), S(1, -1), T(3, -1)$
- c.  $R(-2, -4), S(-2, -1), T(0, -4)$
- d.  $R(4, -1), S(4, 2), T(6, -1)$

11. Which of the following is a prime number?

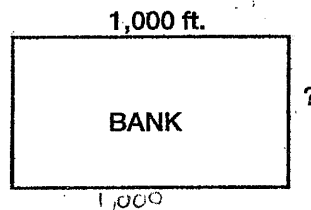
- a. 1
- b. 8
- c. 7
- d. 10

12. Lines A and B are parallel. Which of the following is true?



- a.  $\angle e \cong \angle f, \angle g \cong \angle h$
- b.  $\angle a \cong \angle b, \angle c \cong \angle d$
- c.  $\angle a \cong \angle c, \angle e \cong \angle g$
- d.  $\angle a \cong \angle d, \angle e \cong \angle h$

13. The perimeter of a rectangular bank is 3,000 ft. The length of one side of the bank is 1,000 ft. What is the width of the building?



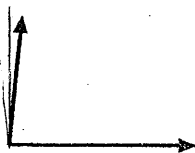
- a. 2,000 ft.
- b. 250 ft.
- c. 1,000 ft.
- d. 500 ft.

all  
15

14. A large blue blanket measures 12 ft. by 8 ft. A small blue blanket measures 5 ft. by 3 ft. What is the difference in the areas of the two blankets?
- 81 ft.<sup>2</sup>
  - 111 ft.<sup>2</sup>
  - 96 ft.<sup>2</sup>
  - 15 ft.<sup>2</sup>

15. What is the measure of this angle?

- 115°
- 120°
- 85°
- 80°



16.  $D + C = E$ . Which of the following is true?

- $C + D = E$
- $D - C = E$
- $D + C = E$
- $D = E$

17. The difference of  $x$  and 7 is equal to 14. What is the equation that means the same as this sentence?

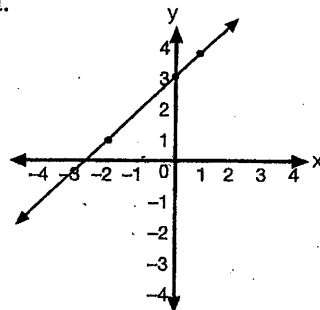
- $\frac{x}{7} = 14$
- $7x = 14$
- $x + 7 = 14$
- $x - 7 = 14$

18. What is the value of  $7x - 2$  if  $x = 3$ ?

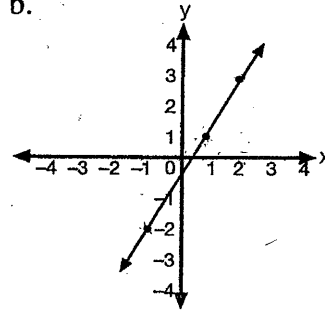
- 23
- 19
- 8
- 7

19. Which is the correct graph for  $(-1, -2)$   $(1, 1)$   $(2, 3)$ ?

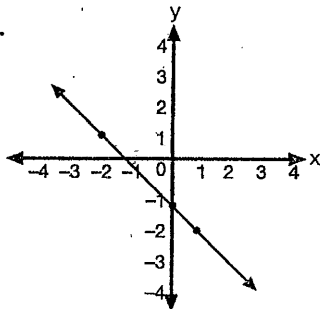
a.



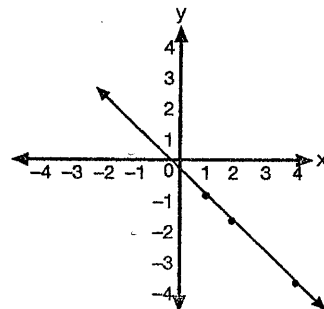
b.



c.



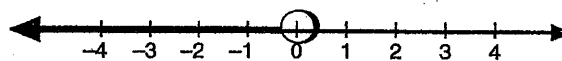
d.



20. Which ordered pair is a solution for  $y = 3x + 7$ ?

- $(-1, -4)$
- $(2, 12)$
- $(2, 13)$
- $(3, 13)$

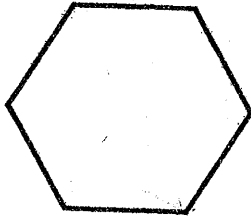
21. Which inequality is shown by the arrow on this line?



- $m = 0$
- $m \leq 0$
- $m < 0$
- $m > 0$

22. What is the length of a rectangle with an area of 60 yds.<sup>2</sup> and a width of 5 yds.? ( $A = lw$ )

- 300 yds.
- 65 yds.
- $\frac{1}{12}$  yd.
- 12 yds.

23. Find the volume of a cereal box with a length of 18 in., a width of 7 in., and a height of 2 in. ( $V = lwh$ )
- 27 in.<sup>3</sup>
  - 126 in.<sup>3</sup>
  - 43 in.<sup>3</sup>
  - 252 in.<sup>3</sup>
24. How many diagonals will this polygon have?
- 9
  - 6
  - 3
  - 2
- 
25. Round \$27.867 to the nearest cent.
- \$27.86
  - \$27.87
  - \$27.90
  - \$28
26. Mack did  $\frac{1}{4}$  of his chores in the morning. If he worked 2 hours in the morning, how many hours of chores does he still have left to do?
- 8 hrs.
  - 2 hrs.
  - 6 hrs.
  - 1 hr.
27. Girls are 30% of the enrollment in Mrs. Joy's class. There are 30 students in the class. How many girls are in the class?
- 15
  - 6
  - 10
  - 9
28. Carol had \$2100 in the bank. She earned 5% interest on this account. How much money had she earned in one year?
- \$105.00
  - \$10.50
  - \$1.50
  - \$1,050.00
29. When averaging six numbers, you should \_\_\_\_\_.
- subtract the highest and lowest numbers
  - add all six numbers and divide by six
  - add all six numbers
  - multiply the highest and lowest numbers and divide by 6
30. Kelly spent 6 hours driving 300 miles. Which of the following can be determined from the above information?
- the price of gasoline per mile
  - the number of rest stops made
  - the average rate of speed
  - how many people were traveling with him
31. Janet and Mary sold 32 magazine subscriptions. Mary sold 3 times as many subscriptions as Janet. What equation could be used to find how many subscriptions Janet and Mary sold each?
- $\frac{x}{3} = 32$
  - $3x = 32$
  - $3x + x = 32$
  - $x - 3 = 32$

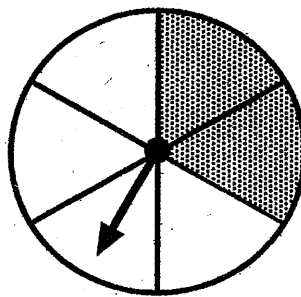
32. The points (1, 1), (1, 3), (6, 1), and (6, 3) are plotted on graph paper. What is the shape of the object when the points are connected?
- circle
  - square
  - triangle
  - rectangle

33. Carolyn can read 150 words in 3 minutes. How many words can she read in 9 minutes?
- 1350
  - 450
  - 16.7
  - 27

34. A recipe calls for  $3\frac{1}{2}$  cups of flour. The recipe serves 15 people. How many cups of flour would be needed to serve 5 people?
- 7 cups
  - $17\frac{1}{2}$  cups
  - $1\frac{1}{6}$  cups
  - $3\frac{1}{2}$  cups

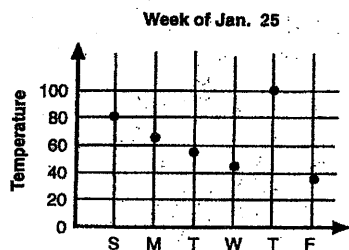
35. The following temperatures were the highs during the second week of July.  
 $90^\circ, 95^\circ, 94^\circ, 91^\circ, 90^\circ, 88^\circ, 89^\circ$   
 What is the median temperature?
- $91\frac{1}{2}^\circ$
  - $89^\circ$
  - $91^\circ$
  - $90^\circ$

36. If a spinner is divided into six equal parts, what is the probability of landing on a shaded part?



- $\frac{1}{3}$
  - $\frac{1}{2}$
  - $\frac{2}{3}$
  - 0
37. Samantha read  $\frac{1}{3}$  of a 360-word passage and  $\frac{1}{2}$  of a 284-word passage. What expression would you use to find how many words she read?
- $(\frac{1}{3} \times 360) + (\frac{1}{2} \times 284)$
  - $\frac{1}{5} (360 + 284)$
  - $\frac{2}{5} (360 + 284)$
  - $(360 \div \frac{1}{3}) + (284 \div \frac{1}{2})$
38. Express 216 in exponential form.
- $4^3$
  - $6^3$
  - $8^3$
  - $5^3$

39. On what day does the temperature not fit the trend of this scatter plot?

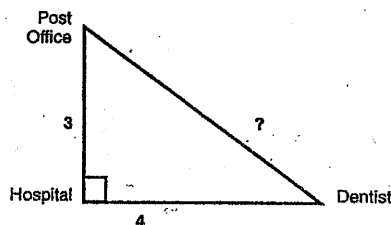


- a. Monday  
b. Tuesday  
c. Wednesday  
d. Thursday
40. What is the sale price of a piano that regularly costs \$5,000 and is  $\frac{1}{4}$  off?  
a. \$3,750  
b. \$6,250  
c. \$625  
d. \$1,250
41. There are 10 desks in a row. How many rows will be needed for 49 students?  
a.  $\frac{10}{49}$  rows  
b. 4.9 rows  
c. 39 rows  
d. 490 rows
42. What is the best way to estimate  $3\frac{6}{7} - 1\frac{1}{3}$ ?  
a.  $3 - 1$   
b.  $4 - 2$   
c.  $4 - 1$   
d.  $3 - 2$

43. What means the same as  $8^4$ ?  
a.  $8 \times 4$   
b.  $8 \times 8 \times 8 \times 8$   
c.  $4 \times 4 \times 4 \times 4 \times 4 \times 4 \times 4 \times 4$   
d.  $8 + 4$

44. What number is expressed by 00246?  
a.  $246 \times 10^{-5}$   
b.  $2.46 \times 10^3$   
c.  $24.6 \times 10^{-4}$   
d.  $2.46 \times 10^{-3}$

45. The distance from the post office to the hospital is 3 miles. The distance from the hospital to the dentist is 4 miles. How many miles is it from the dentist to the post office?

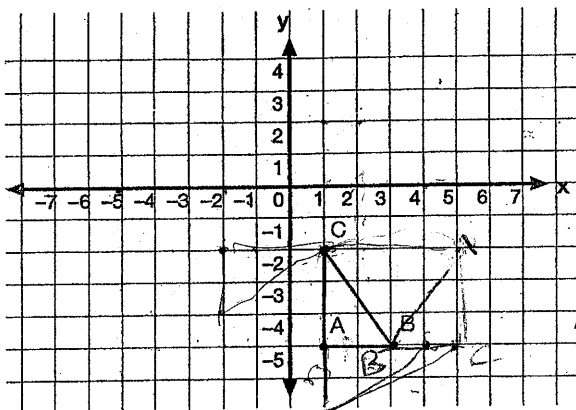


- a. 5 miles  
b. 12 miles  
c. 25 miles  
d. 7 miles
46. Using a calculator, what is  $\sqrt{31}$ ?  
a. 4.472135  
b. 5.477225  
c. 5.567764  
d. 5.656854
47. What decimal represents  $\frac{2}{3}$ ?  
a.  $\overline{.6}$   
b.  $\overline{.3}$   
c. .25  
d. .75

48.  $|6 \cdot 7| + |8 - 6| = \underline{\hspace{2cm}}$ .

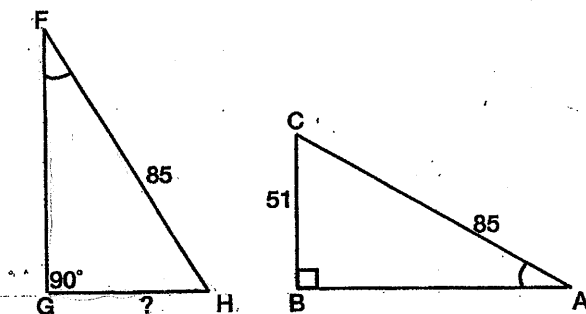
- a. 15
- b. 56
- c. -44
- d. 44

49. What set of ordered pairs represents figure ABC if it is rotated  $1/4$  turn ( $90^\circ$ ) clockwise about point C?



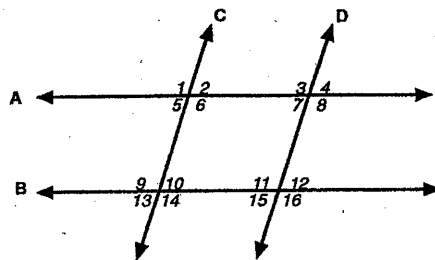
- a. A (-2, -2) B (-2, -4) C (1, -2)
- b. A (-5, -2) B (-5, -4) C (-2, -2)
- c. A (5, 2) B (5, 6) C (2, 2)
- d. A (5, 6) B (5, 2) C (2, 2)

50. What is the measurement of  $\overline{GH}$ ?



- a. 85
- b. 51
- c.  $90^\circ$
- d.  $\overline{GF}$

51. Which statement is not true?



- a. Lines A and B are parallel.
- b. Angles 5 and 2 are equal.
- c. Angles 9 and 14 are equal.
- d. Lines C and A are perpendicular.

52. What is the next number in the Fibonacci Sequence?

1, 1, 2, 3, 5, 8, 13, 21,  $\underline{\hspace{2cm}}$

- a. 22
- b. 29
- c. 34
- d. 42

53. What property would you use to solve  $3(17 + 28) + 5(8 + 3)$ ?

- a. Identity Property of Addition
- b. Associative Property of Multiplication
- c. Distributive Property
- d. Identity Property of Multiplication

54. Which is the same as  $7(2z - 6)$ ?

- a.  $9z - 1$
- b.  $9z - 42$
- c.  $14z + 42$
- d.  $14z - 42$

55. Complete this chart.

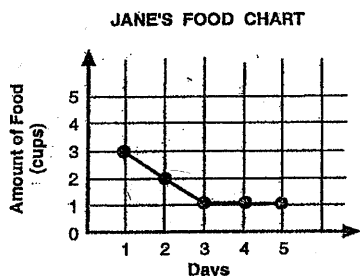
x	$2x + 3$	y
-1	$2(-1) + 3$	1
0	$2(0) + 3$	3
1	$2(1) + 3$	5
2	$2(2) + 3$	?

- a.  $y = 12$   
 b.  $y = 8$   
 c.  $y = 7$   
 d.  $y = -7$

56. Points (7, -1), (9, 1), (6, -2), (4, -4) are on the same line. Which of these points would also be on that line?

- a. (1, 2)  
 b. (6, 1)  
 c. (2, -6)  
 d. (7, -2)

57. Which statement is true?



- a. The amount of food increased the first two days and decreased the last three.  
 b. The amount of food eaten remained the same each day.  
 c. The amount of food decreased, and then remained the same.  
 d. The amount of food decreased the first two days and increased the last three.

58. Use the formula  $I = P \times R \times T$  to find the amount of interest on a \$10,000 principal with a rate of 8% for 5 years.

- a. \$4,000  
 b. \$400,000  
 c. \$400  
 d. \$800

59. What is the circumference of a circle with a radius of 7.5? ( $C = 2\pi r$ )

- a. 94.2  
 b. 23.55  
 c. 15.0  
 d. 47.1

60. A plastic block has a length of 6, a width of 3, and a height of 4. If the height is doubled, how does this volume compare to the original volume?

- a. Volume doubles.  
 b. Volume increases by 4.  
 c. Volume decreases by  $\frac{1}{2}$ .  
 d. Volume does not change.

61. Which team has twice as many women as men?

Teams	Men	Women
I	163	75
II	75	150
III	81	36
IV	103	91

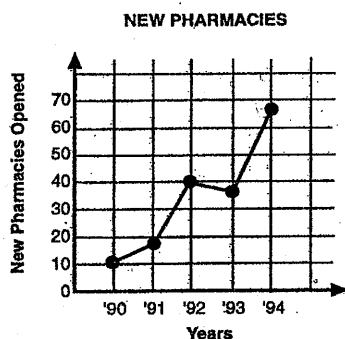
- a. I  
 b. II  
 c. III  
 d. IV



62. In solving  $8 - (3 + 7) + 2$ , what is done first?
- Add 2.
  - Subtract 10.
  - Add 3 + 7.
  - Add 10 and 2.

63. In a crate of 1000 apples, 1 out of 50 apples is rotten. How many rotten apples would be in the crate?
- 100
  - 500
  - 20
  - $\frac{1}{1000}$

64. Which statement is true concerning this graph?



- The number of new pharmacies opened declined every year.
- The number of pharmacies opened in 1992 equaled the number opened in 1993.
- The largest number of new pharmacies opened during 1994.
- 1990 and 1991 were the two years with the greatest number of new stores opened.

65. Marce tossed a dime one time. What is the probability that it will be tails?

- $\frac{1}{2}$
- $\frac{2}{2}$
- $\frac{0}{2}$
- $\frac{2}{1}$

66. What is the value of x in  $3.6x = 32.04$ ?

- 115.344
- 35.64
- 8.9
- .112

67. There are 500 runners in a road race for charity. The runners must raise \$20,000. What amount must each runner raise to meet their goal?

- \$40
- \$400
- \$4
- \$25

1824000

68. The mass of one object is 5,362,000 and another object's mass is 7,186,000. What is the best estimate of the total mass?

- $1 \times 10^6$
- $1 \times 10^7$
- $2 \times 10^7$
- $2 \times 10^6$

69. An ornamental vase is shaped like a parallelogram. The vase has a base of  $6\frac{1}{2}$  yds. and a height of  $2\frac{1}{2}$  yds. What is the area of the vase? ( $A = bh$ )

a.  $2\frac{3}{5}$  yds.<sup>2</sup>  
 b. 4 yds.<sup>2</sup>  
 c. 9 yds.<sup>2</sup>  
 d.  $16\frac{1}{4}$  yds.<sup>2</sup>

70. What is the area of a watch that has a diameter of 2.6 cm? ( $A = \pi r^2$ )

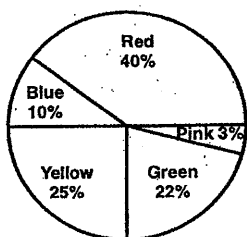
a. 5.3066 cm<sup>2</sup>  
 b. 21.2264 cm<sup>2</sup>  
 c. 8.164 cm<sup>2</sup>  
 d. 4.082 cm<sup>2</sup>

71. Which property is shown?

$$3 + 18 = 18 + 3$$

a. associative property of addition  
 b. distributive property  
 c. commutative property of addition  
 d. associative property of multiplication

72. Which 3 colors of pencils total 50% of pencils bought?



a. blue, red, pink  
 b. yellow, blue, green  
 c. red, green, pink  
 d. yellow, green, pink

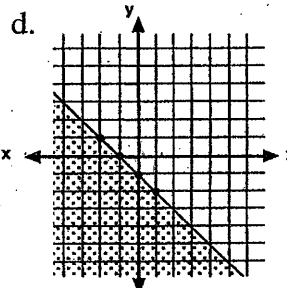
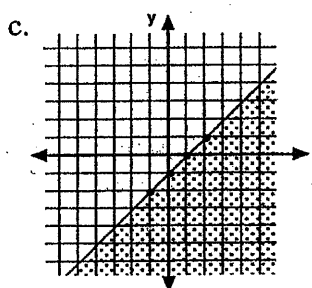
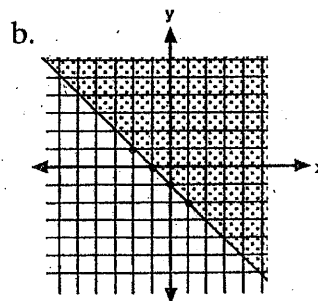
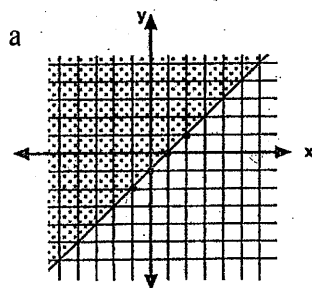
73. Timothy works 41.5 hours per week. If he earns \$7.17 per hour, what is his weekly earnings rounded to the nearest cent?

a. \$297.60  
 b. \$297.56  
 c. \$297.55  
 d. \$298

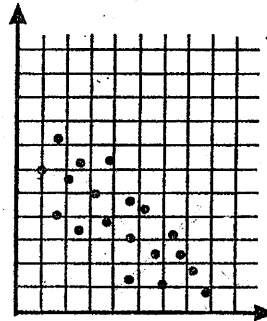
74. Graph the equation  $y = x^2$  using  $-3, -1, 0, 1, 3$  as the values of  $x$ . The result of your graph is a \_\_\_\_\_.

a. straight line  
 b. line segment  
 c. parabola (curve)  
 d. dotted line

75. Which is the graph for  $y \leq x - 1$ ?



76. What is the volume of a rectangular pyramid with a length of 2, a width of 9, and a height of 20? ( $V = \frac{lwh}{3}$ )
- 180
  - 31
  - 360
  - 120
77. A suede suit regularly costs \$299.95. This week it is reduced 25%. What is the discount rounded to the nearest cent?
- \$74.99
  - \$75
  - \$74.98
  - \$70
78. What operation would you do first in  $8 + 14 \div 2 - 25$ ?
- addition
  - division
  - subtraction
  - any operation
79. Eliana drives 30 miles in 40 minutes. How many miles can she drive in 60 minutes?
- 1,800 miles
  - 45 miles
  - 70 miles
  - 90 miles
80. What relationship (correlation) does this scatter plot show?



- positive
- none
- negative
- not enough information