

1. Find the missing terms in the pattern below.

6, 8, 12, 18, 26, 36, _____, 62, 78, _____, 116

[A] 48, 96

[B] 48, 97

[C] 49, 97

[D] 49, 96

2. Write 8912 in expanded notation.

[A] $(8 \times 10000) + (9 \times 1000) + (1 \times 100) + (2 \times 10)$

[B] $(8 \times 10000) + (9 \times 1000) + (2 \times 100) + (1 \times 10)$

[C] $(8 \times 1000) + (9 \times 100) + (1 \times 10) + 2$

[D] $(8 \times 1000) + (9 \times 100) + (2 \times 10) + (1 \times 10)$

3. Evaluate the expression. $2507 - 1996$

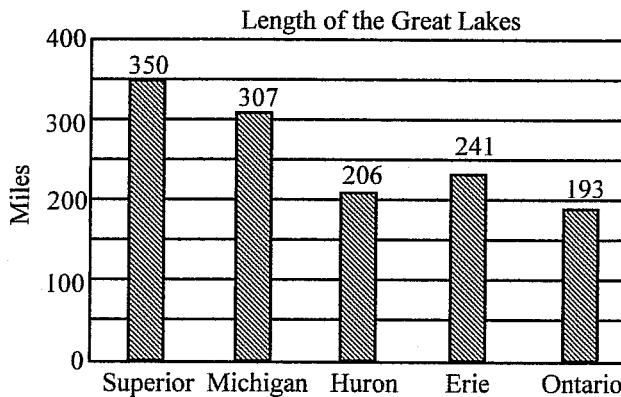
[A] 411

[B] 511

[C] 611

[D] 501

4. Use the bar graph. It shows the length in miles of the Great Lakes.



What is the combined length of all the Great Lakes?

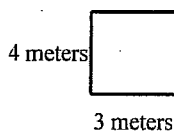
[A] 1297 mi

[B] 1279 mi

[C] 1300 mi

[D] 1104 mi

5. What is the area of this rectangle?



[A] 24 square meters

[B] 7 square meters

[C] 17 square meters

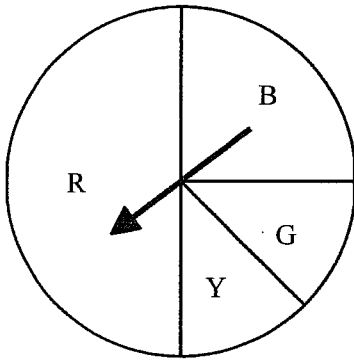
[D] 12 square meters

6. Brandon wrote 45 sentences in 9 minutes. How many sentences did he write in one minute?
[A] 54 sentences [B] 14 sentences [C] 5 sentences [D] 6 sentences
7. Simplify: $36 \div 6 \cdot 6 + 8 - 4$ [A] 4 [B] 10 [C] 5 [D] 40
8. Evaluate $(2a \times 3 + 8) - 6b$ if $a = 9$ and $b = 3$.
[A] 43 [B] 300 [C] 44 [D] 612
9. Convert 558 centimeters to meters.
[A] 5580 m [B] 0.558 m [C] 5.58 m [D] 55,800 m
10. Write 0.03 as a percent. [A] 0.03% [B] 3% [C] 0.0003% [D] $\frac{3}{100}\%$
11. Write $\frac{2}{5}$ as a decimal and as a percent.
[A] 0.4, 4% [B] 0.4; 40% [C] 0.4, 0.4% [D] 4, 40%
12. Which of the following numbers is greater than 2.09?
[A] 2.0920 [B] 2.0890 [C] 1.2100 [D] 2.0080
13. In a three-person medley relay race, the 100-m leg was run in 10.04 s, the 200-m leg in 20.17 s, and the 400-m leg in 44.74 s. What was the total time for the race?
[A] 74.95 s [B] 24.98 s [C] 229.34 s [D] 31.31 s
14. Multiply: 51×0.017 [A] 0.867 [B] 8.67 [C] 867 [D] 0.0867
15. Kevin bought 53 candies for \$32.86. What was the price for each candy?
[A] \$0.62 [B] \$0.72 [C] \$0.56 [D] \$0.68
16. What is the median of the data? The number of miles added to the family car in one week's driving
95, 120, 150, 125, 187, 133, 135
[A] 150 [B] 95 [C] 133 [D] 135

17. What is the mode in the following data? [A] 7 [B] 5 [C] 15 [D] 2
15, 5, 5, 5, 14, 22, 19, 3, 29

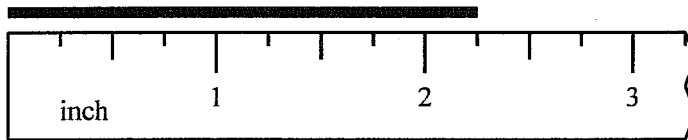
18. Solve: $\frac{5}{7} = \frac{10}{x}$ [A] 19 [B] 24 [C] 14 [D] 11

19. If you spin the spinner, what is the probability of the pointer landing on Y?



[A] $\frac{1}{2}$ [B] 0 [C] 1 [D] $\frac{1}{8}$

20. How long is the black strip to the nearest quarter inch?



[A] 9 in. [B] $2\frac{1}{4}$ in. [C] $2\frac{1}{2}$ in. [D] 2 in.

21. Convert 6 yards to inches. [A] 72 in. [B] 18 in. [C] 75 in. [D] 216 in.

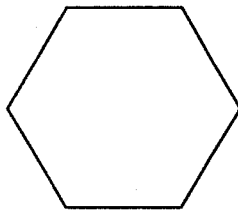
22. Add: $\frac{1}{6} + \frac{1}{9}$ [A] $\frac{1}{3}$ [B] $\frac{5}{18}$ [C] $\frac{2}{15}$ [D] $\frac{3}{2}$

23. $2\frac{3}{4} + 5\frac{1}{4}$ [A] 7 [B] 8 [C] $7\frac{3}{4}$ [D] $8\frac{1}{4}$

24. Multiply: $\frac{1}{5} \times \frac{5}{6}$ [A] $\frac{6}{25}$ [B] 25 [C] 6 [D] $\frac{1}{6}$

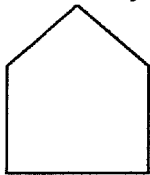
25. Divide: $\frac{1}{8} \div \frac{2}{9}$ [A] $\frac{9}{16}$ [B] $\frac{1}{36}$ [C] 36 [D] $\frac{16}{9}$

26. Identify the polygon.



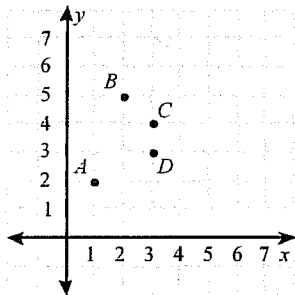
- [A] hexagon [B] octagon [C] quadrilateral [D] pentagon

27. How many lines of symmetry does the figure have?



- [A] 3 [B] 1 [C] 0 [D] 2

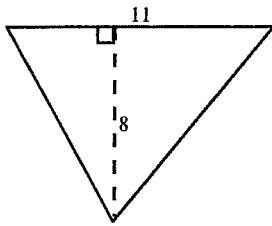
28. Use the figure below.



Imagine that figure $ABCD$ is slid 1 unit to the right and 2 units up to form figure $EFGH$. Name the location of point G .

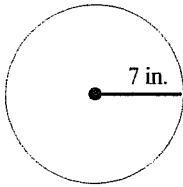
- [A] (4, 5) [B] (4, 6) [C] (3, 6) [D] (3, 5)

29. What is the area of the triangle?



- [A] 44 sq units [B] 88 sq units [C] 38 sq units [D] 76 sq units

30. Find the circumference of the circle in terms of π .



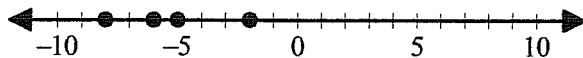
- [A] 14π square inches [B] 14π in. [C] 12π in. [D] 49π in.

31. Suppose you are making a circle graph of your friends' favorite foods. You find that $\frac{1}{9}$ of them like corn the best. What would be the measure of the angle in this section of your circle graph?

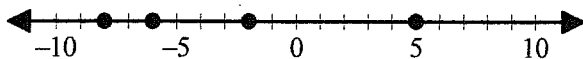
- [A] 40° [B] 9° [C] 80° [D] 20°

32. Graph -2 , $+5$, -6 , and -8 on a number line.

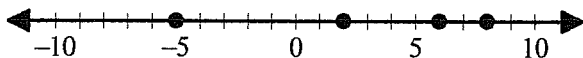
[A]



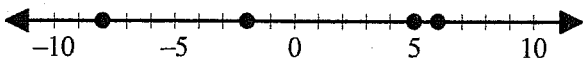
[B]



[C]

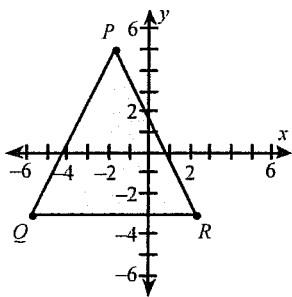


[D]



33. What integer is described by the phrase? 5 less than -4
 [A] -9 [B] 9 [C] -1 [D] 1
34. Order $-4, 3, -2, 1, 0$ from least to greatest.
 [A] $-4, -2, 0, 1, 3$ [B] $3, 1, 0, -2, -4$ [C] $0, 1, -2, 3, 4$ [D] $-4, 3, -2, 1, 0$

35. Use the figure below.



In which quadrant is point Q ?

- [A] Quadrant 4 [B] Quadrant 3 [C] Quadrant 2 [D] Quadrant 1
36. A coin is tossed and a die is rolled. What is the probability that the coin shows tails and the die shows 4?
 [A] $\frac{1}{4}$ [B] $\frac{1}{12}$ [C] $\frac{2}{3}$ [D] $\frac{1}{6}$
37. Choose the correct answer. If you double the length of each side of a square, the is doubled.
 [A] area [B] volume [C] not given [D] perimeter
38. Evaluate the expression when $w = 4$. $50 - (w + 4) \div 2$
 [A] 18 [B] 21 [C] 46 [D] 42
39. By what factors is the number divisible? 346
 [A] 2 and 3 [B] $2, 3,$ and 6 [C] 2 only [D] $2, 3, 4,$ and 6
40. The sum of two prime numbers is greater than 30 and less than 35 . What are the prime numbers?
 [A] 11 and 21 [B] 13 and 19 [C] 15 and 17 [D] 13 and 17

41. Write the fraction in simplest form. $\frac{42}{60}$ [A] $\frac{12}{15}$ [B] $\frac{2}{3}$ [C] $\frac{7}{10}$ [D] $\frac{21}{30}$

42. Write $8\frac{1}{2}$ as an improper fraction. [A] $\frac{15}{2}$ [B] $\frac{16}{2}$ [C] $\frac{17}{2}$ [D] $\frac{81}{2}$

43. Complete the table for the given values of x .

x	$3x+9$
0	
1	
2	
3	

[A]

x	$3x+9$
0	9
1	12
2	15
3	18

[B]

x	$3x+9$
0	9
1	10
2	11
3	12

[C]

x	$3x+9$
0	27
1	30
2	33
3	36

[D]

x	$3x+9$
0	10
1	13
2	16
3	19

44. One day the temperature in Mexico City was 21°C . The temperature in Warsaw was -5°C . What is the difference in these temperatures?

[A] 26°C [B] 4.20°C [C] 16°C [D] impossible to tell

45. The sum of the measures of two complementary angles is 90° . The complement of an angle is 54° . What is the measure of the angle?

[A] 108° [B] 72° [C] 36° [D] 126°

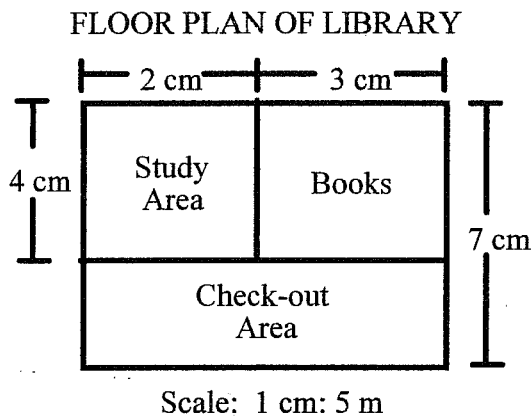
46. You are buying a name necklace for your friend Julie. The chain costs \$2 and each letter costs \$0.50. How much will it cost you to purchase the necklace?

[A] \$4.50 [B] \$5.00 [C] \$4.00 [D] \$3.50

47. A bag contains 3 red, 2 white, and 6 blue marbles. Find the probability of obtaining a white or a blue marble in a single draw.

- [A] $\frac{9}{11}$ [B] $\frac{5}{11}$ [C] 1 [D] $\frac{8}{11}$

48. Choose the correct answer.



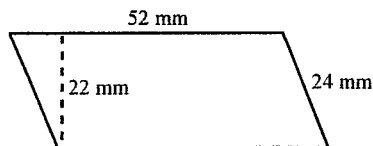
What are the actual dimensions of the study area?

- [A] 10 m × 20 m [B] 5 m × 3 m [C] 35 m × 20 m [D] 2 m × 7 m

49. Michael's softball team won about 60% of the 30 games they played. How many games did they win?

- [A] 12 games [B] 18 games [C] 20 games [D] 17 games

50. Find the area of the figure.

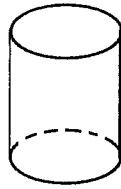


- [A] 1144 sq mm [B] 196 sq mm [C] 27,456 sq mm [D] 1248 sq mm

51. $\sqrt{21}$ is between what two consecutive whole numbers?

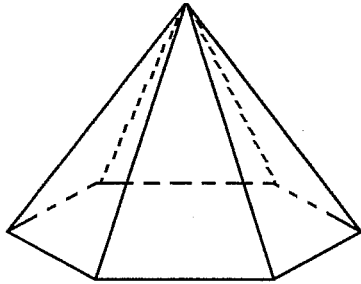
- [A] 20 and 21 [B] 5 and 6 [C] 4 and 5 [D] 3 and 4

52. Name the figure.



- [A] prism [B] cone [C] cube [D] cylinder

53. Find the number of vertices, faces, and edges for the figure below.



[A] 6 vertices, 7 faces, 12 edges

[B] 12 vertices, 7 faces, 7 edges

[C] 7 vertices, 7 faces, 12 edges

[D] 8 vertices, 8 faces, 13 edges

54. Edna owns a small business. There was a profit of \$11 on Monday and a profit of \$5 on Tuesday. On Wednesday there was a profit of \$18 and on Thursday there was a loss of \$6. Find the total profit or loss.

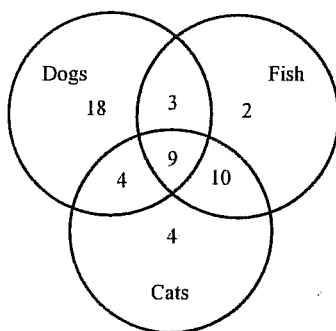
[A] \$40 loss

[B] \$38 profit

[C] \$23 profit

[D] \$28 profit

55. Use the Venn diagram below. It shows the results of a survey of 50 seventh-grade pet owners to determine what type of pet(s) they had.



What is the probability that a seventh-grade pet owner had a cat, a dog, and a fish?

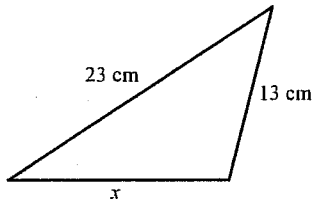
[A] $\frac{13}{50}$

[B] $\frac{12}{50}$

[C] $\frac{9}{50}$

[D] $\frac{19}{50}$

56. Which equation could be used to find the side length labeled x ?



Perimeter = 52 cm

- [A] $13 + 23 = x$ [B] $52 = x + 13 + 23$ [C] $x = 13 + 23 - 52$ [D] $13 \cdot 23 = x$
57. Solve. $6x + 7 = 61$ [A] 11 [B] 9 [C] 68 [D] 54
58. Marilyn's age in 13 years will be twice what it was 9 years ago. How old is Marilyn now?
[A] 24 [B] 31 [C] 22 [D] 33
59. When a number is increased by 15, the result is 26. Find the number.
[A] 11 [B] 390 [C] 41 [D] 26
60. In an electronics experiment, 1 white cord is connected to 2 black cords. Each black cord is connected to 3 gray cords and 4 blue cords. Each blue cord is connected to 2 gray cords. To how many gray cords is each white cord connected?
[A] 18 [B] 11 [C] 28 [D] 22

- [1] A
- [2] C
- [3] B
- [4] A
- [5] D
- [6] C
- [7] D
- [8] C
- [9] C
- [10] B
- [11] B
- [12] A
- [13] A
- [14] A
- [15] A
- [16] C
- [17] B
- [18] C
- [19] D
- [20] B
- [21] D
- [22] B
- [23] B
- [24] D
- [25] A
- [26] A
- [27] B
- [28] B
- [29] A
- [30] B
- [31] A
- [32] B
- [33] A
- [34] A
- [35] B
- [36] B
- [37] D
- [38] C
- [39] C
- [40] B
- [41] C
- [42] C
- [43] A
- [44] A
- [45] C
- [46] A
- [47] D
- [48] A
- [49] B
- [50] A
- [51] C
- [52] D
- [53] C
- [54] D
- [55] C
- [56] B
- [57] B
- [58] B
- [59] A
- [60] D