

1. The table shows the number of members of a local chess club who attended each of the three monthly meetings of the club last summer. If no members left or joined the club during the summer, what is the least number of members that the club could have had during the summer?

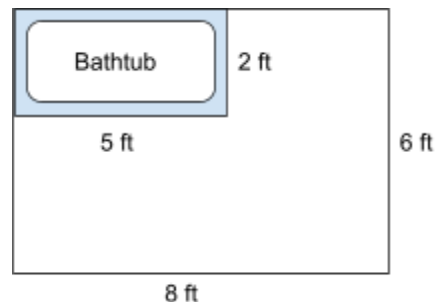
Month	Number Attending
June	21
July	7
August	14

- A. 7
- B. 14
- C. 21
- D. 147

2. In the xy -plane, what is the y -intercept of the graph of the equation $y = (x - 4)^2$?

- A. 0
- B. 2
- C. 4
- D. 16

3. Brian wants to retiling his bathroom floor. He does NOT need to tile underneath the bathtub. According to the drawing below, what is the area of the bathroom floor that needs to be retiled?



- A. 12 sq ft
- B. 38 sq ft
- C. 52 sq ft
- D. 60 sq ft

4. The average of 8, 14, and x is 11. What is the value of x ?

- A. 8
- B. 10
- C. 11
- D. 12

5. If the price of 3 oranges is \$1.65, what is the price of 13 oranges?

- A. \$7.15
- B. \$7.85
- C. \$8.10
- D. \$8.75

6. $x - 1$ is a factor of which of the following?

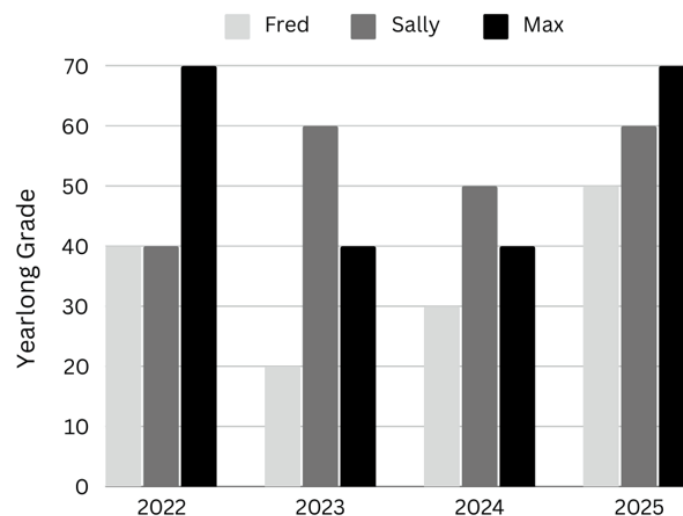
- I. $x^2 + x - 2$
- II. $x^2 + 2x - 3$

- A. Neither
- B. I only
- C. II only
- D. I and II

7. A square has an area of 81 in^2 . What is the perimeter of the square?

- A. 256 in
- B. 36 in
- C. 18 in
- D. 12 in

8. The yearlong grade of three students for four different years is shown in the given graph. Based on the graph, which of the following is a true statement?



- A. The average year long grade of the three students in 2025 was 60.
- B. The average year long grade of the three students in 2022 was 60.
- C. The average year long grade of the three students in 2023 was 50.
- D. The average year long grade of the three students in 2024 was greater than the average year long grade in 2023.

9. There are exactly 20 markers in a box. If x markers are removed, which of the following expressions represents the number of markers left in the box?

- A. $\frac{20}{x}$
- B. $20x$
- C. $x - 20$
- D. $20 - x$

10. The profit formula below is for a company's new product, where x is the number of units of the product sold and P is the profit, in dollars. How much profit was made on the sale of 14,000 units of the product?

$$P = \frac{3}{7}x - 700$$

- A. \$5,300
- B. \$9,200
- C. \$13,700
- D. \$17,660

11. Larry has a square porch with sides of length 9 feet. He plans to enlarge it to a rectangular porch by increasing the length by 3 feet and the width by 2 feet. How much bigger in square feet will the new porch be compared to the old porch?

- A. 6
- B. 12
- C. 29
- D. 51

12. The distance that Ken ran for each of 5 days is shown in the table. What was the average distance that Ken ran per day?

Monday	6 miles
Tuesday	3 miles
Wednesday	6 miles
Thursday	5 miles
Friday	4 miles

- A. 3.2 miles
- B. 4.8 miles
- C. 5.8 miles
- D. 6.4 miles

13. Pam bought 5 gadgets. Kris bought 4 gadgets and an \$18.00 bag. Together, Pam and Kris spent \$63.00. If each gadget cost the same amount, how much did each gadget cost?

- A. \$3.00
- B. \$3.50
- C. \$4.50
- D. \$5.00

14. What are the coordinates of the point of intersection of $y = x + 5$ and $y = 3x - 3$?

- A. (2 , 5)
- B. (3 , 6)
- C. (4 , 9)
- D. (5 , 12)

15. A rectangular swimming pool is x feet wide. The length of the swimming pool is twice as long as the width. If the perimeter of the pool is 92 yards, which of the following equations represents the given information?

- A. $x + x + 2x + 2x = 92$
- B. $x + 2x = 92$
- C. $x + 2 + x + 2 = 92$
- D. $2x + 2x + 2x + 2x = 92$

16. The table below gives the temperature in degrees Fahrenheit for 5 rivers last Monday. If the median of the 5 temperatures was 68°F , which of the following could have been the temperature in River C last Friday?

River	Temperature (degrees Fahrenheit)
A	68°F
B	52°F
C	$x^{\circ}\text{F}$
D	73°F
E	76°F

- A. 65°F
- B. 70°F
- C. 73°F
- D. 80°F

17. Vince traveled 6.8 miles in 1.2 hours. At this same rate, which of the following is closest to the time it will take for Vince to travel 20 miles?

- A. 3 hours
- B. 3.5 hours
- C. 6 hours
- D. 6.5 hours

18. If $6x + 2y + 8 - (2y + 12) = 28 + 2x$, what is the value of x ?

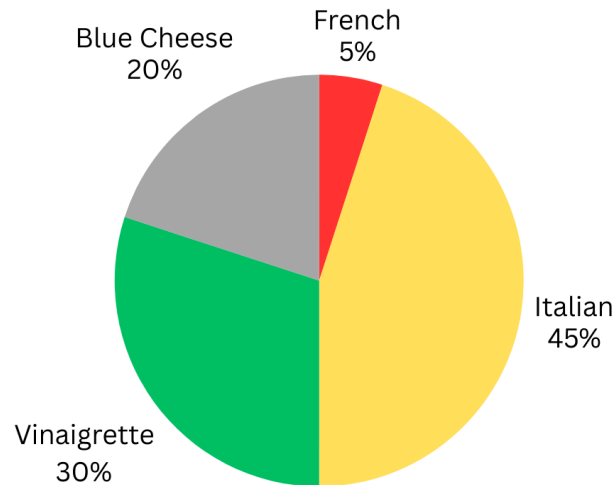
- A. 2
- B. 8
- C. 10
- D. 16

19. The formula for the perimeter of a rectangle with length L and width W is given below. If a rectangle has a perimeter 38, what could be its length L and width W ?

$$P = 2(L + W)$$

- A. $L = 16, W = 16$
- B. $L = 30, W = 8$
- C. $L = 8, W = 7$
- D. $L = 10, W = 9$

20. The circle graph gives the distribution of salad dressing chosen by customers at a restaurant. If approximately 300 customers order salad each day at the restaurant, which of the following is closest to the difference per day between the number who choose Blue Cheese dressing and the number who choose French dressing?



- A. 15
- B. 20
- C. 30
- D. 45