

Pre-Algebra Mastery Challenge

Pre-Algebra · Practice Test · 18 Questions

1. What is the prime factorization of 72?

- A) $2^3 \times 3^2$
- B) $2^2 \times 3^3$
- C) 24×3
- D) 2×34

2. If $x + 7 = 15$, what is the value of x ?

- A) 8
- B) 22
- C) 10
- D) 6

3. What is the greatest common divisor (GCD) of 48 and 64?

- A) 16
- B) 8
- C) 12
- D) 4

4. What is the area of a rectangle with a length of 9 cm and a width of 5 cm?

- A) 45 cm^2
- B) 14 cm^2
- C) 28 cm^2
- D) 19 cm^2

5. If a number is divisible by both 3 and 5, it is also divisible by:

- A) 15
- B) 8
- C) 2
- D) 6

6. What is the value of $5^2 + 3^3$?

- A) 52
- B) 34
- C) 15
- D) 32

7. Solve for y: $3y - 4 = 11$

- A) 5
- B) 7
- C) 15
- D) 3

8. What is the least common multiple (LCM) of 6 and 8?

- A) 24
- B) 12
- C) 48
- D) 2

9. What is the perimeter of a square with a side length of 7 meters?

- A) 28 meters
- B) 49 meters
- C) 14 meters
- D) 21 meters

10. If a recipe calls for 2 cups of flour for every 3 eggs, how many eggs are needed for 6 cups of flour?

- A) 9 eggs
- B) 4 eggs
- C) 12 eggs
- D) 3 eggs

11. What is the value of the expression $10 \div 2 + (5 \times 3)$?

- A) 20
- B) 18
- C) 35
- D) 25

12. What is the absolute value of -12?

- A) 12
- B) -12
- C) 0
- D) 1

13. If the ratio of boys to girls in a class is 3:4, and there are 12 boys, how many girls are there?

- A) 16 girls
- B) 9 girls
- C) 7 girls
- D) 48 girls

14. What is the volume of a cube with a side length of 3 inches?

- A) 27 cubic inches
- B) 9 cubic inches
- C) 18 cubic inches
- D) 36 cubic inches

15. What is the next number in the sequence: 5, 10, 20, 40, ...?

- A) 80
- B) 60
- C) 160
- D) 45

16. If 25% of a number is 10, what is the number?

- A) 40
- B) 250
- C) 15
- D) 35

17. What is the value of $4(x + 2)$ when $x = 3$?

- A) 20
- B) 12
- C) 10
- D) 28

18. What is the average of the numbers 10, 15, and 20?

- A) 15
- B) 10
- C) 20
- D) 45