

Foundations of Algebra

Mathematics · Answer Key · 15 Questions

1. What is the mathematical term for a letter that represents an unknown number in an expression?

- A) Coefficient
- B) Variable**
- C) Constant
- D) Exponent

2. In the expression $5x + 3$, what is the number 5 called?

- A) Variable
- B) Constant
- C) Coefficient**
- D) Operator

3. If $2y = 10$, what is the value of y ?

- A) 5**
- B) 8
- C) 12
- D) 20

4. Which operation should be performed first when solving $4 + (x * 2)$?

- A) Addition
- B) Subtraction
- C) Multiplication**
- D) Division

5. What is the value of x in the equation $x - 7 = 13$?

- A) 6
- B) 10
- C) 20**
- D) 91

6. An algebraic expression that has no variables is known as what?

- A) Equation
- B) Constant**
- C) Term
- D) Inequality

7. If $x = 4$, what is the value of $3x + 2$?

A) 12

B) 14

C) 18

D) 24

8. What is the result of simplifying $2a + 3a$?

A) $5a^2$

B) $6a$

C) $5a$

D) a^5

9. Which symbol is typically used to represent the operation of multiplication in algebra?

A) $\times$

B) $\div$

C) $+$

D) $-$

10. In the expression $x / 4 = 5$, what is the value of x ?

A) 1

B) 9

C) 1.25

D) 20

11. What do we call a mathematical statement that shows two expressions are equal?

A) Expression

B) Variable

C) Equation

D) Coefficient

12. If $x + 5 = 15$, which step isolates the variable x ?

A) Add 5 to both sides

B) Subtract 5 from both sides

C) Multiply by 5

D) Divide by 5

13. What is the value of n if $3n = 27$?

A) 9

B) 24

C) 30

D) 81

14. Which of these is an example of an algebraic expression?

A) $5 + 2 = 7$

B) $10 > 5$

C) $3x + 1$

D) $x = 10$

15. If $a = 2$ and $b = 3$, what is the value of $a + b$?

A) 23

B) 6

C) 5

D) 1