

Basic Algebra Fundamentals

Mathematics · Answer Key · 25 Questions

1. In the algebraic expression $5x + 3$, what is the term '5' called?

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

2. Which of the following represents 'a number x increased by 7'?

- A) $x - 7$
- B) $7x$
- C) $x + 7$**
- D) $x / 7$

3. What is the value of ' x ' if $x + 5 = 12$?

- A) 7**
- B) 17
- C) 60
- D) 2

4. Which algebraic expression represents 'the product of 4 and y '?

- A) $4 + y$
- B) $4 - y$
- C) $y / 4$
- D) $4y$**

5. In the expression $2a - 4$, what is the value of the constant?

- A) 2
- B) a
- C) -4**
- D) 4

6. If $3x = 15$, what is the value of x ?

- A) 5**
- B) 12
- C) 45
- D) 3

7. What is the result when evaluating $2x + 5$ if $x = 3$?

A) 10

B) 11

C) 13

D) 16

8. Which of the following is an example of an algebraic equation?

A) $3x + 2$

B) $5y - 1 = 10$

C) $2a + 4b$

D) $x + 7$

9. What is the inverse operation needed to solve $x - 8 = 10$?

A) Addition

B) Subtraction

C) Multiplication

D) Division

10. If $p = 4$, what is the value of $3p + 2$?

A) 9

B) 12

C) 14

D) 24

11. Which term describes a letter used to represent an unknown number?

A) Constant

B) Coefficient

C) Variable

D) Operator

12. What is the value of y in the equation $y / 2 = 6$?

A) 3

B) 4

C) 8

D) 12

13. Simplify the expression $2x + 3x$.

A) $5x$

B) $6x$

C) $5x^2$

D) x

14. What is the value of 'a' if $2a + 1 = 9$?

A) 3

B) 4

C) 5

D) 8

15. In the expression $7b$, what does the letter 'b' represent?

A) Coefficient

B) Constant

C) Variable

D) Exponent

16. Which expression represents 'half of a number x'?

A) $x + 2$

B) $x - 2$

C) $2x$

D) $x / 2$

17. Evaluate $10 - x$ when $x = 4$.

A) 14

B) 6

C) 40

D) 2.5

18. What is the result of $5m$ if $m = 0$?

A) 5

B) 1

C) 0

D) 50

19. Solve for x: $x + 15 = 20$.

A) 5

B) 35

C) 1.33

D) 300

20. Which mathematical operation is implied in the term ' $8y$ '?

A) Addition

B) Subtraction

C) Multiplication

D) Division

21. If $x = 2$ and $y = 3$, what is the value of $x + y$?

A) 5

B) 6

C) 23

D) 1

22. Identify the coefficient in the expression $9k - 2$.

A) 9

B) k

C) -2

D) 2

23. Solve $4x = 20$.

A) 80

B) 16

C) 5

D) 24

24. Which expression means 'the difference between 10 and m '?

A) $10 + m$

B) $10m$

C) $10 / m$

D) $10 - m$

25. What is the value of $2x^2$ when $x = 3$?

A) 12

B) 18

C) 36

D) 6