



ALGEBRA- Sample Questions

1. M is 8 more than a second number. Which of the following represents the second number?

- A) $M - 11$
- B) $M - 8$
- C) $M + 8$
- D) $M + 17$

2. Which pair of equations does NOT have a solution?

- A) $x + y = -1$ $4x - 3y = 24$
- B) $4x + 6y = 12$ $6x + 9y = 12$
- C) $2x - 3y = -4$ $2x + y = 4$
- D) $5x - 4y = 9$ $x - 2y = -3$

3. If $4(3x + 2) - (x + 5) = -3$ then $x = ?$

- A) $11/6$
- B) $-11/6$
- C) $6/11$
- D) $-6/11$

4. $(3x^3y)^3 = ?$

- A) $9x^9y^3$
- B) $9x^6y^3$
- C) $27x^9y^3$
- D) $27x^6y^3$

5. $(x - 2)$ is a factor of which polynomial?

- I. $x^2 - 4x + 4$
- II. $x^2 + x - 6$

- A) I only
- B) II only
- C) I and II
- D) neither

6. $\frac{2}{2/x + 2/y} = ?$

- A) $x + y/xy$
- B) $xy/(x + y)$
- C) $x + y$
- D) $x + y/4$

7. $x = |-4-5|$ $y = |-4-(-5)|$ $z = |-4| - |-5|$

Which is true about x, y, and z?

- A) $x < z$
- B) $z < y$
- C) $x = z$
- D) $y = z$

8. $\frac{3x}{2y} \times \frac{8y^2}{27x} = ?$

- A) $4y/3$
- B) $4y/9$
- C) $4y/3x$
- D) $4y/9x$

9. $M - 9 = 1$ All of the following mean the same as the given equation except:

- A) M is one more than nine
- B) M is nine more than one
- C) One is nine less than M
- D) Nine is M less than one

10. Solve for x and y:

$$2x + y = 3$$

$$x - 3y = 12$$

- A) (3, 9)
- B) (3,-9)
- C) (3, -3)
- D) (3,3)

11. M is 8 more than a second number. Which of the following represents the second number?

- A) $M - 11$
- B) $M - 8$
- C) $M + 8$
- D) $M + 17$

12. Which pair of equations does NOT have a common solution?

- A) $x + y = -1$ $4x - 3y = 24$
- B) $4x + 6y = 12$ $6x + 9y = 12$
- C) $2x - 3y = -4$ $2x + y = 4$
- D) $5x - 4y = 9$ $x - 2y = -3$

13. $24x - 8 = ?$

- A) $8x$
- B) $8(3x - x)$
- C) $8(3x - 1)$
- D) $8(3x - 8)$

14. $(2x - 5y)^2 = ?$

- A) $4x^2 - 25y^2$
- B) $4x^2 - 10xy + 25y^2$
- C) $4x^2 + 20xy - 25y^2$
- D) $4x^2 - 20xy + 25y^2$

15. $(9 - 7) - (7 - 9) = ?$

- A) 0
- B) 4
- C) -4
- D) -14

16. $(5\sqrt{3x})^2 = ?$

- A) $15x^2$
- B) $45x^2$
- C) $75x^2$
- D) $75x$

17. $4x/5 - 2x/3 + x/2 = ?$

- A) $3x/30$
- B) $x/10$
- C) $19x/30$
- D) $19/30$

18. Which of the following is equal to $x^2 - 10x + 24$?

- A) $(x - 4)(x + 6)$
- B) $(x + 4)(x - 6)$
- C) $(x - 4)(x - 6)$
- D) $(x + 4)(x + 6)$

19. $\frac{3x^2 - 15x}{3x} = ?$

- A) $x - 5x$
- B) $x - 5$
- C) $x^2 - 5x$
- D) $x^2 - 5$

20. Which of the following equals $12x$?

- A) $6x \times 6x$
- B) $13^2 - x$
- C) $-8x + 20x$
- D) $12 + x$

Answers:

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|-------|-------|
| 1. B | 11. B |
| 2. B | 12. B |
| 3. D | 13. C |
| 4. C | 14. D |
| 5. C | 15. B |
| 6. B | 16. D |
| 7. B | 17. C |
| 8. B | 18. C |
| 9. D | 19. B |
| 10. C | 20. C |