

GED Math Worksheet: Quadratic Expressions and Equations (Multiple Choice)

Directions: Choose the correct answer (A–D) for each problem. Topics include factoring expressions, using the FOIL method, and solving basic quadratic equations.

1. Factor: $15x^2 + 9x$

- A. $3x(5x + 3)$
- B. $x(15x + 3)$
- C. $3x(3x + 5)$
- D. $15x(x + 1)$

2. Factor: $x^2 + 7x + 10$

- A. $(x + 2)(x + 5)$
- B. $(x + 3)(x + 4)$
- C. $(x - 2)(x - 5)$
- D. $(x + 1)(x + 10)$

3. Factor: $x^2 - 9$

- A. $(x - 9)(x + 1)$
- B. $(x + 3)(x - 3)$
- C. $(x - 3)(x - 3)$
- D. $(x + 9)(x - 1)$

4. Factor: $x^2 + 11x + 30$

- A. $(x + 6)(x + 5)$
- B. $(x + 3)(x + 10)$
- C. $(x + 2)(x + 15)$
- D. $(x + 1)(x + 30)$

5. Factor: $x^2 - 16$

- A. $(x - 8)(x - 2)$
- B. $(x + 8)(x + 2)$
- C. $(x + 4)(x - 4)$
- D. $(x - 4)(x - 4)$

6. Multiply: $(x + 2)(x + 3)$

- A. $x^2 + 6x + 5$
- B. $x^2 + 5x + 6$
- C. $x^2 + 4x + 6$
- D. $x^2 + 3x + 2$



7. Multiply: $(x - 1)(x - 5)$

- A. $x^2 - 6x + 5$
- B. $x^2 - 4x + 6$
- C. $x^2 - 6x + 1$
- D. $x^2 - 5x - 1$

8. Multiply: $(x + 4)(x - 4)$

- A. $x^2 + 8x - 16$
- B. $x^2 - 8x + 16$
- C. $x^2 - 16$
- D. $x^2 + 4$

9. Multiply: $(x + 1)(x + 6)$

- A. $x^2 + 7x + 6$
- B. $x^2 + 6x + 1$
- C. $x^2 + 5x + 6$
- D. $x^2 + 7x + 1$

10. Multiply: $(x - 3)(x + 2)$

- A. $x^2 - x - 6$
- B. $x^2 + 5x + 6$
- C. $x^2 - x + 6$
- D. $x^2 + x - 6$

11. Solve: $x^2 - 3x = 4$

- A. $x = -1, 4$
- B. $x = 4, 1$
- C. $x = -4, 1$
- D. $x = 3, -1$

12. Solve: $x^2 + 4x = 21$

- A. $x = 3, -7$
- B. $x = -3, 7$
- C. $x = -3, -7$
- D. $x = 3, 7$

13. Solve: $x^2 - x - 6 = 0$

- A. $x = 2, 3$
- B. $x = -2, 3$
- C. $x = 1, 6$
- D. $x = -3, 2$



14. Solve: $x^2 + 2x + 1 = 0$

- A. $x = -1$
- B. $x = 1$
- C. $x = 0$
- D. $x = -1, 1$

15. Solve: $x^2 - 10 = -1$

- A. $x = \pm 3$
- B. $x = \pm\sqrt{11}$
- C. $x = 5, -1$
- D. $x = \pm\sqrt{9}$

16. Solve: $x^2 + 6x + 9 = 0$

- A. $x = 3$
- B. $x = -3$
- C. $x = \pm 3$
- D. $x = -6$

17. Solve: $x^2 + 3x - 10 = 0$

- A. $x = 5, -2$
- B. $x = -5, 2$
- C. $x = -3, 10$
- D. $x = -2, 5$

18. Factor: $x^2 - 6x + 9$

- A. $(x - 3)(x - 3)$
- B. $(x - 6)(x + 1)$
- C. $(x - 9)(x + 3)$
- D. $(x - 2)(x - 4)$

19. Multiply: $(x - 2)(x - 7)$

- A. $x^2 - 9x + 14$
- B. $x^2 + 5x - 14$
- C. $x^2 - 5x + 14$
- D. $x^2 + 9x - 14$

20. Solve: $x^2 + 5x + 6 = 0$

- A. $x = -2, -3$
- B. $x = -1, -6$
- C. $x = -3, -5$
- D. $x = -2, 3$



Answer Key

1. A

2. A

3. B

4. A

5. C

6. B

7. A

8. C

9. A

10. A

11. B

12. C

13. D

14. A

15. B

16. B

17. D

18. A

19. A

20. A

