

Solving Quadratic Equations (D)

Name: _____

Date: _____

Solve each equation for x.

1. $-4x^2 - 33x - 54 = 0$

11. $-4x^2 - 16x + 9 = 0$

2. $-4x^2 - 15x - 14 = 0$

12. $x^2 + 11x + 24 = 0$

3. $-4x^2 + 28x - 45 = 0$

13. $x^2 - 17x + 72 = 0$

4. $4x^2 + 19x + 21 = 0$

14. $4x^2 + 8x - 5 = 0$

5. $-4x^2 + 8x + 5 = 0$

15. $-2x^2 - 27x - 81 = 0$

6. $4x^2 - 4x - 3 = 0$

16. $-3x^2 - 28x - 9 = 0$

7. $-3x^2 + 19x + 72 = 0$

17. $-4x^2 - 8x + 21 = 0$

8. $-x^2 + 2x + 24 = 0$

18. $-x^2 - 9x - 20 = 0$

9. $2x^2 - 7x - 30 = 0$

19. $-2x^2 - x + 6 = 0$

10. $-4x^2 - 20x - 9 = 0$

20. $-3x^2 - 11x - 10 = 0$

Solving Quadratic Equations (D) Answers

Name: _____

Date: _____

Solve each equation for x.

1. $-4x^2 - 33x - 54 = 0$
 $-(4x + 9)(x + 6) = 0$
 $x = -2\frac{1}{4}, -6$

2. $-4x^2 - 15x - 14 = 0$
 $-(4x + 7)(x + 2) = 0$
 $x = -1\frac{3}{4}, -2$

3. $-4x^2 + 28x - 45 = 0$
 $-(2x - 9)(2x - 5) = 0$
 $x = 4\frac{1}{2}, 2\frac{1}{2}$

4. $4x^2 + 19x + 21 = 0$
 $(4x + 7)(x + 3) = 0$
 $x = -1\frac{3}{4}, -3$

5. $-4x^2 + 8x + 5 = 0$
 $-(2x - 5)(2x + 1) = 0$
 $x = 2\frac{1}{2}, -\frac{1}{2}$

6. $4x^2 - 4x - 3 = 0$
 $(2x + 1)(2x - 3) = 0$
 $x = -\frac{1}{2}, 1\frac{1}{2}$

7. $-3x^2 + 19x + 72 = 0$
 $-(x - 9)(3x + 8) = 0$
 $x = 9, -2\frac{2}{3}$

8. $-x^2 + 2x + 24 = 0$
 $-(x + 4)(x - 6) = 0$
 $x = -4, 6$

9. $2x^2 - 7x - 30 = 0$
 $(x - 6)(2x + 5) = 0$
 $x = 6, -2\frac{1}{2}$

10. $-4x^2 - 20x - 9 = 0$
 $-(2x + 9)(2x + 1) = 0$
 $x = -4\frac{1}{2}, -\frac{1}{2}$

11. $-4x^2 - 16x + 9 = 0$
 $-(2x - 1)(2x + 9) = 0$
 $x = \frac{1}{2}, -4\frac{1}{2}$

12. $x^2 + 11x + 24 = 0$
 $(x + 8)(x + 3) = 0$
 $x = -8, -3$

13. $x^2 - 17x + 72 = 0$
 $(x - 9)(x - 8) = 0$
 $x = 9, 8$

14. $4x^2 + 8x - 5 = 0$
 $(2x + 5)(2x - 1) = 0$
 $x = -2\frac{1}{2}, \frac{1}{2}$

15. $-2x^2 - 27x - 81 = 0$
 $-(x + 9)(2x + 9) = 0$
 $x = -9, -4\frac{1}{2}$

16. $-3x^2 - 28x - 9 = 0$
 $-(3x + 1)(x + 9) = 0$
 $x = -\frac{1}{3}, -9$

17. $-4x^2 - 8x + 21 = 0$
 $-(2x + 7)(2x - 3) = 0$
 $x = -3\frac{1}{2}, 1\frac{1}{2}$

18. $-x^2 - 9x - 20 = 0$
 $-(x + 5)(x + 4) = 0$
 $x = -5, -4$

19. $-2x^2 - x + 6 = 0$
 $-(x + 2)(2x - 3) = 0$
 $x = -2, 1\frac{1}{2}$

20. $-3x^2 - 11x - 10 = 0$
 $-(3x + 5)(x + 2) = 0$
 $x = -1\frac{2}{3}, -2$