

Solving Quadratic Equations (D)

Solve each equation for x

1. $2x^2 - 7x - 1 = 14$

7. $2x^2 - 14x + 14 = -10$

2. $2x^2 - 5x - 8 = 17$

8. $x^2 + 2x - 7 = 41$

3. $x^2 + 2x - 20 = 4$

9. $x^2 - 65 = 16$

4. $x^2 - 15x + 2 = -54$

10. $2x^2 - 15x + 5 = -2$

5. $4x^2 - 4x - 9 = 15$

11. $2x^2 + 4x - 11 = 5$

6. $2x^2 + 5x - 41 = 22$

12. $4x^2 + 2x - 13 = 17$

Solving Quadratic Equations (D) Answers

Solve each equation for x

1. $2x^2 - 7x - 1 = 14$
 $2x^2 - 7x - 15 = 0$
 $(2x + 3)(x - 5) = 0$
 $x = -1 \frac{1}{2}, 5$

2. $2x^2 - 5x - 8 = 17$
 $2x^2 - 5x - 25 = 0$
 $(2x + 5)(x - 5) = 0$
 $x = -2 \frac{1}{2}, 5$

3. $x^2 + 2x - 20 = 4$
 $x^2 + 2x - 24 = 0$
 $(x + 6)(x - 4) = 0$
 $x = -6, 4$

4. $x^2 - 15x + 2 = -54$
 $x^2 - 15x + 56 = 0$
 $(x - 7)(x - 8) = 0$
 $x = 7, 8$

5. $4x^2 - 4x - 9 = 15$
 $4x^2 - 4x - 24 = 0$
 $(2x + 4)(2x - 6) = 0$
 $x = -2, 3$

6. $2x^2 + 5x - 41 = 22$
 $2x^2 + 5x - 63 = 0$
 $(x + 7)(2x - 9) = 0$
 $x = -7, 4 \frac{1}{2}$

7. $2x^2 - 14x + 14 = -10$
 $2x^2 - 14x + 24 = 0$
 $(x - 4)(2x - 6) = 0$
 $x = 4, 3$

8. $x^2 + 2x - 7 = 41$
 $x^2 + 2x - 48 = 0$
 $(x + 8)(x - 6) = 0$
 $x = -8, 6$

9. $x^2 - 65 = 16$
 $x^2 - 81 = 0$
 $(x + 9)(x - 9) = 0$
 $x = -9, 9$

10. $2x^2 - 15x + 5 = -2$
 $2x^2 - 15x + 7 = 0$
 $(2x - 1)(x - 7) = 0$
 $x = \frac{1}{2}, 7$

11. $2x^2 + 4x - 11 = 5$
 $2x^2 + 4x - 16 = 0$
 $(x + 4)(2x - 4) = 0$
 $x = -4, 2$

12. $4x^2 + 2x - 13 = 17$
 $4x^2 + 2x - 30 = 0$
 $(2x + 6)(2x - 5) = 0$
 $x = -3, 2 \frac{1}{2}$