

Solving Quadratic Equations (E)

Solve each equation for x

1. $x^2 - 11x = -18$

7. $x^2 - 8x - 5 = 4$

2. $x^2 - 3x - 9 = 1$

8. $2x^2 - 20x + 38 = -4$

3. $-2x^2 + 12x - 13 = 5$

9. $2x^2 - 2x - 11 = 29$

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

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

5. $2x^2 + 20x + 14 = -34$

11. $4x^2 - 2x - 10 = 10$

6. $x^2 + 10x + 7 = -17$

12. $-2x^2 - 7x = -15$

Solving Quadratic Equations (E) Answers

Solve each equation for x

1. $x^2 - 11x = -18$
 $x^2 - 11x + 18 = 0$
 $(x - 2)(x - 9) = 0$
 $x = 2, 9$

7. $x^2 - 8x - 5 = 4$
 $x^2 - 8x - 9 = 0$
 $(x + 1)(x - 9) = 0$
 $x = -1, 9$

2. $x^2 - 3x - 9 = 1$
 $x^2 - 3x - 10 = 0$
 $(x - 5)(x + 2) = 0$
 $x = 5, -2$

8. $2x^2 - 20x + 38 = -4$
 $2x^2 - 20x + 42 = 0$
 $(x - 7)(2x - 6) = 0$
 $x = 7, 3$

3. $-2x^2 + 12x - 13 = 5$
 $-2x^2 + 12x - 18 = 0$
 $(2x - 6)(x - 3) = 0$
 $x = 3$

9. $2x^2 - 2x - 11 = 29$
 $2x^2 - 2x - 40 = 0$
 $(2x + 8)(x - 5) = 0$
 $x = -4, 5$

4. $-2x^2 - 2x + 2 = -2$
 $-2x^2 - 2x + 4 = 0$
 $-(2x + 4)(x - 1) = 0$
 $x = -2, 1$

10. $-2x^2 + x + 5 = -10$
 $-2x^2 + x + 15 = 0$
 $-(2x + 5)(x - 3) = 0$
 $x = -2\frac{1}{2}, 3$

5. $2x^2 + 20x + 14 = -34$
 $2x^2 + 20x + 48 = 0$
 $(2x + 8)(x + 6) = 0$
 $x = -4, -6$

11. $4x^2 - 2x - 10 = 10$
 $4x^2 - 2x - 20 = 0$
 $(2x + 4)(2x - 5) = 0$
 $x = -2, 2\frac{1}{2}$

6. $x^2 + 10x + 7 = -17$
 $x^2 + 10x + 24 = 0$
 $(x + 4)(x + 6) = 0$
 $x = -4, -6$

12. $-2x^2 - 7x = -15$
 $-2x^2 - 7x + 15 = 0$
 $-(x + 5)(2x - 3) = 0$
 $x = -5, 1\frac{1}{2}$