

Solving Quadratic Equations (F)

Solve each equation for x

1. $-x^2 + 3x + 14 = -14$

7. $-x^2 - 13x - 5 = 31$

2. $x^2 + 2x - 48 = 15$

8. $2x^2 - 6x - 3 = 33$

3. $4x^2 + 8x + 4 = 0$

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

4. $x^2 - 14x + 17 = -28$

10. $-x^2 + 5x - 5 = 1$

5. $-4x^2 + 8x + 9 = -12$

11. $2x^2 + 2x - 8 = 16$

6. $4x^2 + 4x + 1 = 0$

12. $4x^2 - 22x + 7 = -21$

Solving Quadratic Equations (F) Answers

Solve each equation for x

1. $-x^2 + 3x + 14 = -14$
 $-x^2 + 3x + 28 = 0$
 $-(x - 7)(x + 4) = 0$
 $x = 7, -4$

2. $x^2 + 2x - 48 = 15$
 $x^2 + 2x - 63 = 0$
 $(x + 9)(x - 7) = 0$
 $x = -9, 7$

3. $4x^2 + 8x + 4 = 0$
 $4x^2 + 8x + 4 = 0$
 $(2x + 2)(2x + 2) = 0$
 $x = -1$

4. $x^2 - 14x + 17 = -28$
 $x^2 - 14x + 45 = 0$
 $(x - 5)(x - 9) = 0$
 $x = 5, 9$

5. $-4x^2 + 8x + 9 = -12$
 $-4x^2 + 8x + 21 = 0$
 $(2x + 3)(2x - 7) = 0$
 $x = -1 \frac{1}{2}, 3 \frac{1}{2}$

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

7. $-x^2 - 13x - 5 = 31$
 $-x^2 - 13x - 36 = 0$
 $-(x + 9)(x + 4) = 0$
 $x = -9, -4$

8. $2x^2 - 6x - 3 = 33$
 $2x^2 - 6x - 36 = 0$
 $(x - 6)(2x + 6) = 0$
 $x = 6, -3$

9. $x^2 - 6x - 3 = 4$
 $x^2 - 6x - 7 = 0$
 $(x + 1)(x - 7) = 0$
 $x = -1, 7$

10. $-x^2 + 5x - 5 = 1$
 $-x^2 + 5x - 6 = 0$
 $-(x - 2)(x - 3) = 0$
 $x = 2, 3$

11. $2x^2 + 2x - 8 = 16$
 $2x^2 + 2x - 24 = 0$
 $(2x - 6)(x + 4) = 0$
 $x = 3, -4$

12. $4x^2 - 22x + 7 = -21$
 $4x^2 - 22x + 28 = 0$
 $(2x - 4)(2x - 7) = 0$
 $x = 2, 3 \frac{1}{2}$