

Solving Quadratic Equations (A)

Solve each equation for x

1. $-2x^2 + 9x + 29 = -6$

7. $x^2 - x - 44 = 12$

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

8. $2x^2 - 21x + 28 = -12$

3. $2x^2 - 3x - 4 = 5$

9. $-2x^2 + 17x - 12 = 9$

4. $4x^2 - 20x + 16 = -8$

10. $-x^2 - 2x + 19 = -29$

5. $2x^2 + 22x + 13 = -23$

11. $x^2 + 10x + 4 = -5$

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

12. $-4x^2 - 26x - 6 = 30$

Solving Quadratic Equations (A) Answers

Solve each equation for x

1. $-2x^2 + 9x + 29 = -6$
 $-2x^2 + 9x + 35 = 0$
 $-(x - 7)(2x + 5) = 0$
 $x = 7, -2 \frac{1}{2}$

7. $x^2 - x - 44 = 12$
 $x^2 - x - 56 = 0$
 $(x + 7)(x - 8) = 0$
 $x = -7, 8$

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

8. $2x^2 - 21x + 28 = -12$
 $2x^2 - 21x + 40 = 0$
 $(2x - 5)(x - 8) = 0$
 $x = 2 \frac{1}{2}, 8$

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

9. $-2x^2 + 17x - 12 = 9$
 $-2x^2 + 17x - 21 = 0$
 $-(2x - 3)(x - 7) = 0$
 $x = 1 \frac{1}{2}, 7$

4. $4x^2 - 20x + 16 = -8$
 $4x^2 - 20x + 24 = 0$
 $(2x - 6)(2x - 4) = 0$
 $x = 3, 2$

10. $-x^2 - 2x + 19 = -29$
 $-x^2 - 2x + 48 = 0$
 $-(x + 8)(x - 6) = 0$
 $x = -8, 6$

5. $2x^2 + 22x + 13 = -23$
 $2x^2 + 22x + 36 = 0$
 $(x + 9)(2x + 4) = 0$
 $x = -9, -2$

11. $x^2 + 10x + 4 = -5$
 $x^2 + 10x + 9 = 0$
 $(x + 1)(x + 9) = 0$
 $x = -1, -9$

6. $-x^2 - 10x - 7 = 2$
 $-x^2 - 10x - 9 = 0$
 $(x + 1)(x + 9) = 0$
 $x = -1, -9$

12. $-4x^2 - 26x - 6 = 30$
 $-4x^2 - 26x - 36 = 0$
 $-(2x + 4)(2x + 9) = 0$
 $x = -2, -4 \frac{1}{2}$