

# Solving Quadratic Equations (B)

Solve each equation for x

$$1. \quad x^2 - 10x + 6 = -18$$

$$7. \quad x^2 + 13x + 32 = -8$$

$$2. \quad x^2 - 3x - 23 = 31$$

$$8. \quad x^2 + 2x - 10 = 25$$

$$3. \quad x^2 + x - 34 = 38$$

$$9. \quad x^2 - 6x - 11 = 5$$

$$4. \quad x^2 - 3x - 8 = 2$$

$$10. \quad x^2 - 4x - 3 = 18$$

$$5. \quad x^2 + x - 24 = 6$$

$$11. \quad x^2 - 2x - 2 = 22$$

$$6. \quad x^2 + 7x - 3 = 5$$

$$12. \quad x^2 + 6x + 4 = -1$$

# Solving Quadratic Equations (B) Answers

Solve each equation for x

1.  $x^2 - 10x + 6 = -18$   
 $x^2 - 10x + 24 = 0$   
 $(x - 6)(x - 4) = 0$   
 $x = 6, 4$

7.  $x^2 + 13x + 32 = -8$   
 $x^2 + 13x + 40 = 0$   
 $(x + 8)(x + 5) = 0$   
 $x = -8, -5$

2.  $x^2 - 3x - 23 = 31$   
 $x^2 - 3x - 54 = 0$   
 $(x - 9)(x + 6) = 0$   
 $x = 9, -6$

8.  $x^2 + 2x - 10 = 25$   
 $x^2 + 2x - 35 = 0$   
 $(x + 7)(x - 5) = 0$   
 $x = -7, 5$

3.  $x^2 + x - 34 = 38$   
 $x^2 + x - 72 = 0$   
 $(x + 9)(x - 8) = 0$   
 $x = -9, 8$

9.  $x^2 - 6x - 11 = 5$   
 $x^2 - 6x - 16 = 0$   
 $(x - 8)(x + 2) = 0$   
 $x = 8, -2$

4.  $x^2 - 3x - 8 = 2$   
 $x^2 - 3x - 10 = 0$   
 $(x + 2)(x - 5) = 0$   
 $x = -2, 5$

10.  $x^2 - 4x - 3 = 18$   
 $x^2 - 4x - 21 = 0$   
 $(x + 3)(x - 7) = 0$   
 $x = -3, 7$

5.  $x^2 + x - 24 = 6$   
 $x^2 + x - 30 = 0$   
 $(x - 5)(x + 6) = 0$   
 $x = 5, -6$

11.  $x^2 - 2x - 2 = 22$   
 $x^2 - 2x - 24 = 0$   
 $(x + 4)(x - 6) = 0$   
 $x = -4, 6$

6.  $x^2 + 7x - 3 = 5$   
 $x^2 + 7x - 8 = 0$   
 $(x - 1)(x + 8) = 0$   
 $x = 1, -8$

12.  $x^2 + 6x + 4 = -1$   
 $x^2 + 6x + 5 = 0$   
 $(x + 5)(x + 1) = 0$   
 $x = -5, -1$