

# Solving Quadratic Equations (D)

Solve each equation for x

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

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

2.  $x^2 + 2x - 26 = 22$

8.  $-x^2 + 5x + 32 = -4$

3.  $x^2 - 8x + 10 = -2$

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

4.  $-x^2 + 4x + 45 = 0$

10.  $-x^2 - 8x + 3 = -6$

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

11.  $-x^2 - 4x + 7 = -14$

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

12.  $-x^2 - 10x - 5 = 11$

# Solving Quadratic Equations (D) Answers

Solve each equation for x

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

2.  $x^2 + 2x - 26 = 22$   
 $x^2 + 2x - 48 = 0$   
 $(x + 8)(x - 6) = 0$   
 $x = -8, 6$

3.  $x^2 - 8x + 10 = -2$   
 $x^2 - 8x + 12 = 0$   
 $(x - 6)(x - 2) = 0$   
 $x = 6, 2$

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

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

6.  $x^2 + 10x + 10 = -6$   
 $x^2 + 10x + 16 = 0$   
 $(x + 8)(x + 2) = 0$   
 $x = -8, -2$

7.  $-x^2 + 6x - 3 = 5$   
 $-x^2 + 6x - 8 = 0$   
 $-(x - 4)(x - 2) = 0$   
 $x = 4, 2$

8.  $-x^2 + 5x + 32 = -4$   
 $-x^2 + 5x + 36 = 0$   
 $-(x - 9)(x + 4) = 0$   
 $x = 9, -4$

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

10.  $-x^2 - 8x + 3 = -6$   
 $-x^2 - 8x + 9 = 0$   
 $-(x - 1)(x + 9) = 0$   
 $x = 1, -9$

11.  $-x^2 - 4x + 7 = -14$   
 $-x^2 - 4x + 21 = 0$   
 $-(x + 7)(x - 3) = 0$   
 $x = -7, 3$

12.  $-x^2 - 10x - 5 = 11$   
 $-x^2 - 10x - 16 = 0$   
 $-(x + 2)(x + 8) = 0$   
 $x = -2, -8$