

# Solving Quadratic Equations (I)

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Solve each equation for x.

1.  $x^2 + 12x + 35 = 0$

11.  $x^2 - 6x + 9 = 0$

2.  $x^2 - 3x - 54 = 0$

12.  $-x^2 - 3x + 40 = 0$

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

13.  $-x^2 + 13x - 36 = 0$

4.  $x^2 - 8x - 9 = 0$

14.  $-x^2 + 4x + 21 = 0$

5.  $x^2 - 9x + 8 = 0$

15.  $x^2 - 1 = 0$

6.  $x^2 + x - 56 = 0$

16.  $x^2 - 4x - 32 = 0$

7.  $-x^2 - 13x - 36 = 0$

17.  $-x^2 - 4x - 3 = 0$

8.  $-x^2 + 10x - 25 = 0$

18.  $x^2 + 11x + 30 = 0$

9.  $x^2 + 10x + 21 = 0$

19.  $-x^2 + 9x - 20 = 0$

10.  $x^2 - 3x - 40 = 0$

20.  $-x^2 + 12x - 35 = 0$

# Solving Quadratic Equations (I) Answers

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Solve each equation for x.

1.  $x^2 + 12x + 35 = 0$   
 $(x + 7)(x + 5) = 0$   
 $x = -7, -5$

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

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

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

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

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

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

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

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

10.  $x^2 - 3x - 40 = 0$   
 $(x + 5)(x - 8) = 0$   
 $x = -5, 8$

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

12.  $-x^2 - 3x + 40 = 0$   
 $-(x + 8)(x - 5) = 0$   
 $x = -8, 5$

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

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

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

16.  $x^2 - 4x - 32 = 0$   
 $(x + 4)(x - 8) = 0$   
 $x = -4, 8$

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

18.  $x^2 + 11x + 30 = 0$   
 $(x + 5)(x + 6) = 0$   
 $x = -5, -6$

19.  $-x^2 + 9x - 20 = 0$   
 $-(x - 4)(x - 5) = 0$   
 $x = 4, 5$

20.  $-x^2 + 12x - 35 = 0$   
 $-(x - 5)(x - 7) = 0$   
 $x = 5, 7$