

# Solving Quadratic Equations (J)

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

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

Solve each equation for x.

1.  $2x^2 - 5x - 42 = 0$

11.  $6x^2 + 7x + 2 = 0$

2.  $9x^2 - 71x - 8 = 0$

12.  $7x^2 + 26x + 15 = 0$

3.  $4x^2 + 28x + 45 = 0$

13.  $-6x^2 + 23x + 4 = 0$

4.  $7x^2 + 69x + 54 = 0$

14.  $4x^2 + 8x + 3 = 0$

5.  $8x^2 - 55x - 7 = 0$

15.  $-6x^2 - 37x - 56 = 0$

6.  $x^2 - 64 = 0$

16.  $-8x^2 - 50x - 63 = 0$

7.  $-9x^2 - 3x + 56 = 0$

17.  $-2x^2 + 13x - 21 = 0$

8.  $8x^2 + 46x + 63 = 0$

18.  $5x^2 + 22x - 15 = 0$

9.  $9x^2 + 77x - 36 = 0$

19.  $5x^2 - 39x + 28 = 0$

10.  $7x^2 - 43x + 6 = 0$

20.  $6x^2 + 19x + 14 = 0$

# Solving Quadratic Equations (J) Answers

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

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

Solve each equation for x.

1.  $2x^2 - 5x - 42 = 0$   
 $(x - 6)(2x + 7) = 0$   
 $x = 6, -3\frac{1}{2}$

2.  $9x^2 - 71x - 8 = 0$   
 $(x - 8)(9x + 1) = 0$   
 $x = 8, -\frac{1}{9}$

3.  $4x^2 + 28x + 45 = 0$   
 $(2x + 5)(2x + 9) = 0$   
 $x = -2\frac{1}{2}, -4\frac{1}{2}$

4.  $7x^2 + 69x + 54 = 0$   
 $(7x + 6)(x + 9) = 0$   
 $x = -\frac{6}{7}, -9$

5.  $8x^2 - 55x - 7 = 0$   
 $(8x + 1)(x - 7) = 0$   
 $x = -\frac{1}{8}, 7$

6.  $x^2 - 64 = 0$   
 $(x - 8)(x + 8) = 0$   
 $x = 8, -8$

7.  $-9x^2 - 3x + 56 = 0$   
 $-(3x - 7)(3x + 8) = 0$   
 $x = 2\frac{1}{3}, -2\frac{2}{3}$

8.  $8x^2 + 46x + 63 = 0$   
 $(2x + 7)(4x + 9) = 0$   
 $x = -3\frac{1}{2}, -2\frac{1}{4}$

9.  $9x^2 + 77x - 36 = 0$   
 $(x + 9)(9x - 4) = 0$   
 $x = -9, \frac{4}{9}$

10.  $7x^2 - 43x + 6 = 0$   
 $(7x - 1)(x - 6) = 0$   
 $x = \frac{1}{7}, 6$

11.  $6x^2 + 7x + 2 = 0$   
 $(2x + 1)(3x + 2) = 0$   
 $x = -\frac{1}{2}, -\frac{2}{3}$

12.  $7x^2 + 26x + 15 = 0$   
 $(x + 3)(7x + 5) = 0$   
 $x = -3, -\frac{5}{7}$

13.  $-6x^2 + 23x + 4 = 0$   
 $-(x - 4)(6x + 1) = 0$   
 $x = 4, -\frac{1}{6}$

14.  $4x^2 + 8x + 3 = 0$   
 $(2x + 1)(2x + 3) = 0$   
 $x = -\frac{1}{2}, -1\frac{1}{2}$

15.  $-6x^2 - 37x - 56 = 0$   
 $-(3x + 8)(2x + 7) = 0$   
 $x = -2\frac{2}{3}, -3\frac{1}{2}$

16.  $-8x^2 - 50x - 63 = 0$   
 $-(4x + 7)(2x + 9) = 0$   
 $x = -1\frac{3}{4}, -4\frac{1}{2}$

17.  $-2x^2 + 13x - 21 = 0$   
 $-(2x - 7)(x - 3) = 0$   
 $x = 3\frac{1}{2}, 3$

18.  $5x^2 + 22x - 15 = 0$   
 $(x + 5)(5x - 3) = 0$   
 $x = -5, \frac{3}{5}$

19.  $5x^2 - 39x + 28 = 0$   
 $(x - 7)(5x - 4) = 0$   
 $x = 7, \frac{4}{5}$

20.  $6x^2 + 19x + 14 = 0$   
 $(6x + 7)(x + 2) = 0$   
 $x = -1\frac{1}{6}, -2$