

# Solving Quadratic Equations (J)

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

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

Solve each equation for x.

1.  $3x^2 + 28x + 32 = 0$

11.  $3x^2 - x - 2 = 0$

2.  $3x^2 - 22x + 35 = 0$

12.  $4x^2 - 35x + 24 = 0$

3.  $4x^2 + 11x - 20 = 0$

13.  $4x^2 + 27x - 40 = 0$

4.  $4x^2 + 15x + 9 = 0$

14.  $4x^2 - 13x + 10 = 0$

5.  $2x^2 + x - 3 = 0$

15.  $4x^2 - 8x - 5 = 0$

6.  $2x^2 + 23x + 56 = 0$

16.  $4x^2 - 24x + 35 = 0$

7.  $4x^2 + 12x + 5 = 0$

17.  $2x^2 - 11x - 6 = 0$

8.  $3x^2 - 2x - 1 = 0$

18.  $4x^2 + 33x + 54 = 0$

9.  $2x^2 + 5x - 42 = 0$

19.  $4x^2 + 19x - 63 = 0$

10.  $3x^2 - 7x + 2 = 0$

20.  $4x^2 + 8x - 45 = 0$

# Solving Quadratic Equations (J) Answers

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

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

Solve each equation for x.

- $3x^2 + 28x + 32 = 0$   
 $(x + 8)(3x + 4) = 0$   
 $x = -8, -1\frac{1}{3}$
- $3x^2 - 22x + 35 = 0$   
 $(x - 5)(3x - 7) = 0$   
 $x = 5, 2\frac{1}{3}$
- $4x^2 + 11x - 20 = 0$   
 $(4x - 5)(x + 4) = 0$   
 $x = 1\frac{1}{4}, -4$
- $4x^2 + 15x + 9 = 0$   
 $(4x + 3)(x + 3) = 0$   
 $x = -\frac{3}{4}, -3$
- $2x^2 + x - 3 = 0$   
 $(2x + 3)(x - 1) = 0$   
 $x = -1\frac{1}{2}, 1$
- $2x^2 + 23x + 56 = 0$   
 $(2x + 7)(x + 8) = 0$   
 $x = -3\frac{1}{2}, -8$
- $4x^2 + 12x + 5 = 0$   
 $(2x + 5)(2x + 1) = 0$   
 $x = -2\frac{1}{2}, -\frac{1}{2}$
- $3x^2 - 2x - 1 = 0$   
 $(x - 1)(3x + 1) = 0$   
 $x = 1, -\frac{1}{3}$
- $2x^2 + 5x - 42 = 0$   
 $(2x - 7)(x + 6) = 0$   
 $x = 3\frac{1}{2}, -6$
- $3x^2 - 7x + 2 = 0$   
 $(x - 2)(3x - 1) = 0$   
 $x = 2, \frac{1}{3}$
- $3x^2 - x - 2 = 0$   
 $(3x + 2)(x - 1) = 0$   
 $x = -\frac{2}{3}, 1$
- $4x^2 - 35x + 24 = 0$   
 $(4x - 3)(x - 8) = 0$   
 $x = \frac{3}{4}, 8$
- $4x^2 + 27x - 40 = 0$   
 $(x + 8)(4x - 5) = 0$   
 $x = -8, 1\frac{1}{4}$
- $4x^2 - 13x + 10 = 0$   
 $(4x - 5)(x - 2) = 0$   
 $x = 1\frac{1}{4}, 2$
- $4x^2 - 8x - 5 = 0$   
 $(2x + 1)(2x - 5) = 0$   
 $x = -\frac{1}{2}, 2\frac{1}{2}$
- $4x^2 - 24x + 35 = 0$   
 $(2x - 7)(2x - 5) = 0$   
 $x = 3\frac{1}{2}, 2\frac{1}{2}$
- $2x^2 - 11x - 6 = 0$   
 $(2x + 1)(x - 6) = 0$   
 $x = -\frac{1}{2}, 6$
- $4x^2 + 33x + 54 = 0$   
 $(4x + 9)(x + 6) = 0$   
 $x = -2\frac{1}{4}, -6$
- $4x^2 + 19x - 63 = 0$   
 $(4x - 9)(x + 7) = 0$   
 $x = 2\frac{1}{4}, -7$
- $4x^2 + 8x - 45 = 0$   
 $(2x - 5)(2x + 9) = 0$   
 $x = 2\frac{1}{2}, -4\frac{1}{2}$