

# Solving Quadratic Equations (H)

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

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

Solve each equation for x.

1.  $-4x^2 + 29x + 63 = 0$

11.  $-4x^2 + 12x + 7 = 0$

2.  $4x^2 - 5x - 9 = 0$

12.  $-2x^2 - 5x - 3 = 0$

3.  $-4x^2 - 12x + 27 = 0$

13.  $-2x^2 - 7x - 5 = 0$

4.  $2x^2 + 17x + 36 = 0$

14.  $-2x^2 + 21x - 40 = 0$

5.  $-2x^2 - 3x - 1 = 0$

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

6.  $3x^2 + 4x - 15 = 0$

16.  $-x^2 + 11x - 28 = 0$

7.  $3x^2 + 8x - 35 = 0$

17.  $3x^2 + x - 14 = 0$

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

18.  $-3x^2 + 2x + 8 = 0$

9.  $2x^2 - 23x + 56 = 0$

19.  $-4x^2 + 8x - 3 = 0$

10.  $3x^2 + 23x - 8 = 0$

20.  $4x^2 - 16x + 15 = 0$

# Solving Quadratic Equations (H) Answers

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

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

Solve each equation for x.

- $-4x^2 + 29x + 63 = 0$   
 $-(4x + 7)(x - 9) = 0$   
 $x = -1\frac{3}{4}, 9$
- $4x^2 - 5x - 9 = 0$   
 $(4x - 9)(x + 1) = 0$   
 $x = 2\frac{1}{4}, -1$
- $-4x^2 - 12x + 27 = 0$   
 $-(2x + 9)(2x - 3) = 0$   
 $x = -4\frac{1}{2}, 1\frac{1}{2}$
- $2x^2 + 17x + 36 = 0$   
 $(2x + 9)(x + 4) = 0$   
 $x = -4\frac{1}{2}, -4$
- $-2x^2 - 3x - 1 = 0$   
 $-(x + 1)(2x + 1) = 0$   
 $x = -1, -\frac{1}{2}$
- $3x^2 + 4x - 15 = 0$   
 $(x + 3)(3x - 5) = 0$   
 $x = -3, 1\frac{2}{3}$
- $3x^2 + 8x - 35 = 0$   
 $(x + 5)(3x - 7) = 0$   
 $x = -5, 2\frac{1}{3}$
- $4x^2 - 8x + 3 = 0$   
 $(2x - 1)(2x - 3) = 0$   
 $x = \frac{1}{2}, 1\frac{1}{2}$
- $2x^2 - 23x + 56 = 0$   
 $(x - 8)(2x - 7) = 0$   
 $x = 8, 3\frac{1}{2}$
- $3x^2 + 23x - 8 = 0$   
 $(x + 8)(3x - 1) = 0$   
 $x = -8, \frac{1}{3}$
- $-4x^2 + 12x + 7 = 0$   
 $-(2x + 1)(2x - 7) = 0$   
 $x = -\frac{1}{2}, 3\frac{1}{2}$
- $-2x^2 - 5x - 3 = 0$   
 $-(2x + 3)(x + 1) = 0$   
 $x = -1\frac{1}{2}, -1$
- $-2x^2 - 7x - 5 = 0$   
 $-(x + 1)(2x + 5) = 0$   
 $x = -1, -2\frac{1}{2}$
- $-2x^2 + 21x - 40 = 0$   
 $-(2x - 5)(x - 8) = 0$   
 $x = 2\frac{1}{2}, 8$
- $-2x^2 + 5x + 18 = 0$   
 $-(2x - 9)(x + 2) = 0$   
 $x = 4\frac{1}{2}, -2$
- $-x^2 + 11x - 28 = 0$   
 $-(x - 4)(x - 7) = 0$   
 $x = 4, 7$
- $3x^2 + x - 14 = 0$   
 $(x - 2)(3x + 7) = 0$   
 $x = 2, -2\frac{1}{3}$
- $-3x^2 + 2x + 8 = 0$   
 $-(x - 2)(3x + 4) = 0$   
 $x = 2, -1\frac{1}{3}$
- $-4x^2 + 8x - 3 = 0$   
 $-(2x - 1)(2x - 3) = 0$   
 $x = \frac{1}{2}, 1\frac{1}{2}$
- $4x^2 - 16x + 15 = 0$   
 $(2x - 3)(2x - 5) = 0$   
 $x = 1\frac{1}{2}, 2\frac{1}{2}$