

# Solving Quadratic Equations (H)

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

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

Solve each equation for x.

1.  $108x^2 - 231x - 27 = 0$

11.  $-64x^2 + 152x - 90 = 0$

2.  $-15x^2 + 70x + 120 = 0$

12.  $-240x^2 + 110x + 25 = 0$

3.  $108x^2 - 78x - 10 = 0$

13.  $24x^2 + 50x - 14 = 0$

4.  $90x^2 + 15x - 5 = 0$

14.  $-14x^2 - 76x - 30 = 0$

5.  $-196x^2 - 252x - 32 = 0$

15.  $-72x^2 + 316x - 224 = 0$

6.  $-140x^2 + 145x - 30 = 0$

16.  $360x^2 + 175x + 15 = 0$

7.  $-150x^2 - 365x - 200 = 0$

17.  $-48x^2 + 75 = 0$

8.  $64x^2 - 256x + 252 = 0$

18.  $360x^2 - 365x + 40 = 0$

9.  $-32x^2 - 4x + 28 = 0$

19.  $84x^2 - 34x - 8 = 0$

10.  $100x^2 + 55x - 15 = 0$

20.  $-108x^2 - 276x - 56 = 0$

# Solving Quadratic Equations (H) Answers

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

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

Solve each equation for x.

- $108x^2 - 231x - 27 = 0$   
 $3(4x - 9)(9x + 1) = 0$   
 $x = 2\frac{1}{4}, -\frac{1}{9}$
- $-15x^2 + 70x + 120 = 0$   
 $-5(x - 6)(3x + 4) = 0$   
 $x = 6, -1\frac{1}{3}$
- $108x^2 - 78x - 10 = 0$   
 $2(6x - 5)(9x + 1) = 0$   
 $x = \frac{5}{6}, -\frac{1}{9}$
- $90x^2 + 15x - 5 = 0$   
 $5(3x + 1)(6x - 1) = 0$   
 $x = -\frac{1}{3}, \frac{1}{6}$
- $-196x^2 - 252x - 32 = 0$   
 $-4(7x + 1)(7x + 8) = 0$   
 $x = -\frac{1}{7}, -1\frac{1}{7}$
- $-140x^2 + 145x - 30 = 0$   
 $-5(4x - 3)(7x - 2) = 0$   
 $x = \frac{3}{4}, \frac{2}{7}$
- $-150x^2 - 365x - 200 = 0$   
 $-5(5x + 8)(6x + 5) = 0$   
 $x = -1\frac{3}{5}, -\frac{5}{6}$
- $64x^2 - 256x + 252 = 0$   
 $4(4x - 9)(4x - 7) = 0$   
 $x = 2\frac{1}{4}, 1\frac{3}{4}$
- $-32x^2 - 4x + 28 = 0$   
 $-4(x + 1)(8x - 7) = 0$   
 $x = -1, \frac{7}{8}$
- $100x^2 + 55x - 15 = 0$   
 $5(4x + 3)(5x - 1) = 0$   
 $x = -\frac{3}{4}, \frac{1}{5}$
- $-64x^2 + 152x - 90 = 0$   
 $-2(8x - 9)(4x - 5) = 0$   
 $x = 1\frac{1}{8}, 1\frac{1}{4}$
- $-240x^2 + 110x + 25 = 0$   
 $-5(8x - 5)(6x + 1) = 0$   
 $x = \frac{5}{8}, -\frac{1}{6}$
- $24x^2 + 50x - 14 = 0$   
 $2(4x - 1)(3x + 7) = 0$   
 $x = \frac{1}{4}, -2\frac{1}{3}$
- $-14x^2 - 76x - 30 = 0$   
 $-2(7x + 3)(x + 5) = 0$   
 $x = -\frac{3}{7}, -5$
- $-72x^2 + 316x - 224 = 0$   
 $-4(2x - 7)(9x - 8) = 0$   
 $x = 3\frac{1}{2}, \frac{8}{9}$
- $360x^2 + 175x + 15 = 0$   
 $5(9x + 1)(8x + 3) = 0$   
 $x = -\frac{1}{9}, -\frac{3}{8}$
- $-48x^2 + 75 = 0$   
 $-3(4x + 5)(4x - 5) = 0$   
 $x = -1\frac{1}{4}, 1\frac{1}{4}$
- $360x^2 - 365x + 40 = 0$   
 $5(8x - 1)(9x - 8) = 0$   
 $x = \frac{1}{8}, \frac{8}{9}$
- $84x^2 - 34x - 8 = 0$   
 $2(7x - 4)(6x + 1) = 0$   
 $x = \frac{4}{7}, -\frac{1}{6}$
- $-108x^2 - 276x - 56 = 0$   
 $-4(3x + 7)(9x + 2) = 0$   
 $x = -2\frac{1}{3}, -\frac{2}{9}$