

# Solving Quadratic Equations (E)

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

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

Solve each equation for x.

1.  $-4x^2 + 18x + 70 = 0$

11.  $-25x^2 + 230x - 45 = 0$

2.  $-15x^2 - 72x - 48 = 0$

12.  $4x^2 + 20x + 24 = 0$

3.  $-20x^2 - 160x - 315 = 0$

13.  $-10x^2 + 65x - 90 = 0$

4.  $20x^2 - 64x + 12 = 0$

14.  $12x^2 + 44x - 16 = 0$

5.  $16x^2 - 100x + 144 = 0$

15.  $16x^2 - 128x + 252 = 0$

6.  $-4x^2 - 64x - 256 = 0$

16.  $4x^2 - 6x - 28 = 0$

7.  $6x^2 + 21x - 27 = 0$

17.  $-4x^2 + 8x + 12 = 0$

8.  $12x^2 - 52x + 48 = 0$

18.  $2x^2 + 6x - 108 = 0$

9.  $4x^2 + 26x - 90 = 0$

19.  $-2x^2 + 12x + 32 = 0$

10.  $6x^2 + 20x + 6 = 0$

20.  $-6x^2 - 57x - 27 = 0$

# Solving Quadratic Equations (E) Answers

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

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

Solve each equation for x.

- $-4x^2 + 18x + 70 = 0$   
 $-2(2x + 5)(x - 7) = 0$   
 $x = -2\frac{1}{2}, 7$
- $-15x^2 - 72x - 48 = 0$   
 $-3(5x + 4)(x + 4) = 0$   
 $x = -\frac{4}{5}, -4$
- $-20x^2 - 160x - 315 = 0$   
 $-5(2x + 7)(2x + 9) = 0$   
 $x = -3\frac{1}{2}, -4\frac{1}{2}$
- $20x^2 - 64x + 12 = 0$   
 $4(x - 3)(5x - 1) = 0$   
 $x = 3, \frac{1}{5}$
- $16x^2 - 100x + 144 = 0$   
 $4(4x - 9)(x - 4) = 0$   
 $x = 2\frac{1}{4}, 4$
- $-4x^2 - 64x - 256 = 0$   
 $-4(x + 8)(x + 8) = -4(x + 8)^2 = 0$   
 $x = -8$
- $6x^2 + 21x - 27 = 0$   
 $3(x - 1)(2x + 9) = 0$   
 $x = 1, -4\frac{1}{2}$
- $12x^2 - 52x + 48 = 0$   
 $4(x - 3)(3x - 4) = 0$   
 $x = 3, 1\frac{1}{3}$
- $4x^2 + 26x - 90 = 0$   
 $2(2x - 5)(x + 9) = 0$   
 $x = 2\frac{1}{2}, -9$
- $6x^2 + 20x + 6 = 0$   
 $2(x + 3)(3x + 1) = 0$   
 $x = -3, -\frac{1}{3}$
- $-25x^2 + 230x - 45 = 0$   
 $-5(x - 9)(5x - 1) = 0$   
 $x = 9, \frac{1}{5}$
- $4x^2 + 20x + 24 = 0$   
 $4(x + 2)(x + 3) = 0$   
 $x = -2, -3$
- $-10x^2 + 65x - 90 = 0$   
 $-5(2x - 9)(x - 2) = 0$   
 $x = 4\frac{1}{2}, 2$
- $12x^2 + 44x - 16 = 0$   
 $4(x + 4)(3x - 1) = 0$   
 $x = -4, \frac{1}{3}$
- $16x^2 - 128x + 252 = 0$   
 $4(2x - 7)(2x - 9) = 0$   
 $x = 3\frac{1}{2}, 4\frac{1}{2}$
- $4x^2 - 6x - 28 = 0$   
 $2(2x - 7)(x + 2) = 0$   
 $x = 3\frac{1}{2}, -2$
- $-4x^2 + 8x + 12 = 0$   
 $-4(x - 3)(x + 1) = 0$   
 $x = 3, -1$
- $2x^2 + 6x - 108 = 0$   
 $2(x - 6)(x + 9) = 0$   
 $x = 6, -9$
- $-2x^2 + 12x + 32 = 0$   
 $-2(x + 2)(x - 8) = 0$   
 $x = -2, 8$
- $-6x^2 - 57x - 27 = 0$   
 $-3(x + 9)(2x + 1) = 0$   
 $x = -9, -\frac{1}{2}$