

Solving Quadratic Equations Using Factoring

Answer Key

Solve each of the following quadratic equations by factoring. Some equations may not factor.

1. $x^2 + 7x - 18 = 0$
 $(x + 9)(x - 2) = 0$ so $x = -9, x = 2$

2. $x^2 - 5x - 6 = 0$
 $(x - 2)(x - 3) = 0$ so $x = 2, x = 3$

3. $x^2 - 17x + 70 = 0$
 $(x - 7)(x - 10) = 0$ so $x = 7, x = 10$

4. $-x^2 + 2x + 6 = 0$
Does not factor

5. $5x^2 + 75x = 0$
 $5x(x + 15) = 0$ so $x = 0, x = -15$

6. $x^2 + 4x + 4 = 0$
 $(x + 2)(x + 2) = 0$ so $x = -2$

7. $x^2 - 81 = 0$
 $(x - 9)(x + 9) = 0$ so $x = -9, x = 9$

8. $x^2 + 3x - 1 = 4x + 5$
 $(x - 3)(x + 2) = 0$ so $x = -2, x = 3$

9. $2x - x^2 = 0$
 $x(2 - x) = 0$ so $x = 0, x = 2$

10. $2x^2 + 3x - 18 = 0$
Does not factor