

# Unit 8: Quadratic Equations

## PRACTICE · SET 2

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

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

Solve each quadratic equation. Give exact answers; use fractions or  $\sqrt{\phantom{x}}$  where needed, and list both solutions when there are two.

1. Solve by factoring:  $x^2 - 7x + 12 = 0$

Answer: \_\_\_\_\_

2. Solve by factoring:  $x^2 + 5x - 14 = 0$

Answer: \_\_\_\_\_

3. Solve by factoring:  $x^2 - 9 = 0$

Answer: \_\_\_\_\_

4. Solve by factoring:  $2x^2 + 7x + 3 = 0$

Answer: \_\_\_\_\_

5. Solve:  $x^2 = 49$

Answer: \_\_\_\_\_

6. Solve by taking square roots:  $(x - 4)^2 = 25$

Answer: \_\_\_\_\_

7. Solve by completing the square:  $x^2 + 6x + 5 = 0$

Answer: \_\_\_\_\_

8. Solve by completing the square:  $x^2 - 10x + 16 = 0$

Answer: \_\_\_\_\_

9. Solve using the quadratic formula:  $x^2 + 3x - 10 = 0$

Answer: \_\_\_\_\_

10. Solve using the quadratic formula:  $2x^2 - 5x - 3 = 0$

Answer: \_\_\_\_\_

11. Solve using the quadratic formula (leave in exact form):  $x^2 - 4x + 1 = 0$

Answer: \_\_\_\_\_

12. Find the value of the discriminant  $b^2 - 4ac$  for  $3x^2 - 4x + 2 = 0$

Answer: \_\_\_\_\_