

Geometry**Unit One B: Factoring Practice (IC30)**

Name: _____

Date: _____ Period: _____

Solve the following equations.

1. $x^2 + 6x - 7 = 0$

$$(x + 7)(x - 1) = 0$$

$$x + 7 = 0 \quad x - 1 = 0$$

$$x = -7 \quad x = 1$$

2. $x^2 + 6x - 16 = 0$

$$(x + 8)(x - 2) = 0$$

$$x + 8 = 0 \quad x - 2 = 0$$

$$x = -8 \quad x = 2$$

3. $x^2 + 13x = -12$

$$x^2 + 13x + 12 = 0$$

$$(x + 12)(x + 1) = 0$$

$$x + 12 = 0 \quad x + 1 = 0$$

$$x = -12 \quad x = -1$$

4. $x^2 + 35 = 12x$

$$x^2 - 12x + 35 = 0$$

$$(x - 7)(x - 5) = 0$$

$$x - 7 = 0 \quad x - 5 = 0$$

$$x = 7 \quad x = 5$$

5. $x^2 = 9x - 18$

$$x^2 - 9x + 18 = 0$$

$$(x - 6)(x - 3) = 0$$

$$x - 6 = 0 \quad x - 3 = 0$$

$$x = 6 \quad x = 3$$

6. $x^2 + 10 = -7x$

$$x^2 + 7x + 10 = 0$$

$$(x + 5)(x + 2) = 0$$

$$x + 5 = 0 \quad x + 2 = 0$$

$$x = -5 \quad x = -2$$

7. $x^2 + 8x + 16 = 0$

$$(x + 4)(x + 4) = 0$$

$$x + 4 = 0 \quad x + 4 = 0$$

$$x = -4; \quad x = -4$$

8. $x^2 = 27 - 6x$

$$x^2 + 6x - 27 = 0$$

$$(x + 9)(x - 3) = 0$$

$$x + 9 = 0 \quad x - 3 = 0$$

$$x = -9 \quad x = 3$$

9. $x^2 - 2x = -1$

$$x^2 - 2x + 1 = 0$$

$$(x - 1)(x - 1) = 0$$

$$x - 1 = 0$$

$$x = 1; \quad x = 1$$

10. $10x - x^2 = 25$

$$0 = x^2 - 10x + 25$$

$$0 = (x - 5)(x - 5)$$

$$x - 5 = 0$$

$$x = 5; \quad x = 5$$