

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

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

### Solving Quadratic Equations by Factoring

Period: \_\_\_\_\_

### Solving Quadratics by Factoring

**Do Now:**

1. Factor $x^2 + 3x - 54$	2. Put $x^2 - 7x = -10$ in standard form.
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**Steps:**

1. Transform the equation into \_\_\_\_\_, if necessary. ( $ax^2 + bx + c$ )
2. \_\_\_\_\_ the quadratic expression.
3. Set each factor equal to \_\_\_\_\_, if it has a \_\_\_\_\_.
4. Solve for the \_\_\_\_\_.
5. \_\_\_\_\_ by substituting each answer into the original equation.

**Directions:** Solve the following equations and check your answers.

1. $x^2 - 7x = -10$	2. $x^2 + 3x - 54 = 0$
3. $2x^2 = 3x$	4. $x^2 = 3x - 2$

$$5. x^2 - 49 = 0$$

$$6. 3x^2 - 12 = 0$$

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

$$8. x^2 - x - 12 = 0$$

$$9. m^2 - 64 = 0$$

$$10. d^2 - 2d = 0$$

$$11. y^2 - 3y = 28$$

$$12. x^2 = 9x - 20$$

$$13. x(x - 2) = 35$$

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HW: Solving Quadratic Equations by Factoring

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### Solving Quadratics by Factoring HOMEWORK

**Directions:** Solve each equation and check.

1.  $x^2 - 8x + 16 = 0$

2.  $x^2 - 4x - 5 = 0$

3.  $z^2 - 4 = 0$

4.  $y^2 - 3y = 28$

5.  $x^2 = 121$

6.  $x^2 + 3x - 4 = 50$