

## Converting Between Forms HW-1

Date \_\_\_\_\_ Period \_\_\_\_\_

- 1) What is the Factored Form of a quadratic equation?
- 2) What is the Standard Form of a quadratic equation?
- 3) What is the Vertex form of a quadratic equation?

**1. Identify the VERTEX.****2. CONVERT FROM VERTEX FORM TO STANDARD FORM**

4)  $y = 2(x - 1)^2 - 4$

5)  $y = (x + 1)^2 - 3$

6)  $y = -(x + 3)^2 + 4$

7)  $y = -2(x - 2)^2 - 3$

8)  $y = -(x - 3)^2 - 1$

9)  $y = -2(x + 2)^2 - 3$

**CONVERT FROM STANDARD TO VERTEX FORM.**

10)  $y = 2x^2 - 16x + 34$

11)  $y = -\frac{1}{2}x^2 - 4x - 6$

$$12) y = -2x^2 + 16x - 30$$

$$13) y = -x^2 - 6x - 6$$

$$14) y = -2x^2 - 16x - 31$$

$$15) y = x^2 - 2x + 2$$

**CONVERT FROM STANDARD FORM TO FACTORED FORM.**

$$16) n^2 - 8n - 4 = -4$$

$$17) r^2 - 8r + 18 = 3$$

$$18) x^2 + 9x + 13 = 5$$

$$19) x^2 - 8x + 18 = 6$$

$$20) p^2 - 8p + 11 = 4$$

$$21) 3r^2 + 21r + 41 = 5$$

**CONVERT FROM FACTORED FORM TO STANDARD FORM.**

$$22) (n + 8)(n + 3) = 0$$

$$23) (n + 3)(n - 8) = 0$$

$$24) (8n - 3)(n + 3) = 0$$

$$25) (v + 4)(v + 8) = 0$$

$$26) (x - 5)(x + 1) = 0$$

$$27) (m - 5)(m - 7) = 0$$