

## 4.2 Switching Forms

**Write each equation in intercept form.**

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

2)  $y = x^2 + 6x + 5$

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

4)  $y = x^2 - 4x + 5$

5)  $y = -(x - 2)^2 + 4$

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

7)  $y = -2(x - 4)^2 + 2$

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

**Write each equation in standard form.**

9)  $y = 3(x + 2)(x - 4)$

10)  $y = -2(x + 7)(x - 1)$

$$11) y = -x(x + 5)$$

$$12) y = 3(x + 2)(x + 6)$$

$$13) y = (x + 2)^2 - 1$$

$$14) y = 2(x + 1)^2 + 1$$

$$15) y = 2(x + 2)^2 - 3$$

$$16) y = -2(x + 3)^2 + 4$$

**Write each equation in vertex form.**

$$17) y = x^2 + 4x + 2$$

$$18) y = -2x^2 - 16x - 36$$

$$19) y = -x^2 - 8x - 17$$

$$20) y = \frac{1}{2}x^2 + 4x + 9$$

$$21) y = (x - 1)(x + 5)$$

$$22) y = 2(x + 6)(x - 3)$$

$$23) y = -(x - 2)(x - 8)$$

$$24) y = 2(x + 6)(x - 4)$$