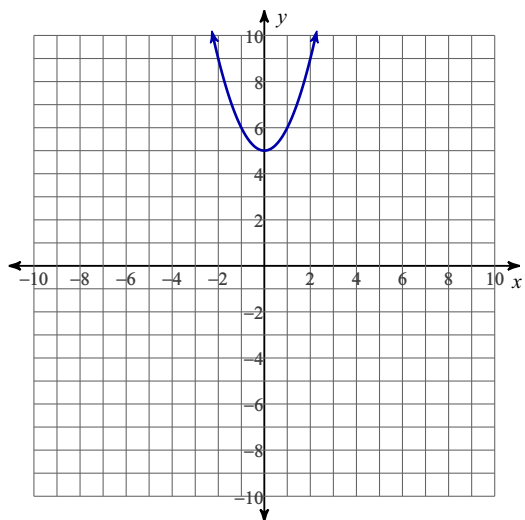


## Graphing Quadratic Functions Answer Key

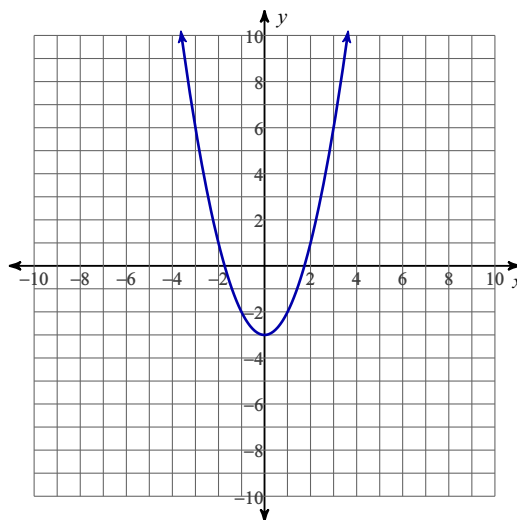
Date \_\_\_\_\_ Period \_\_\_\_\_

**Graph each transformation of  $f(x) = x^2$  and describe how it compares to the parent function.**

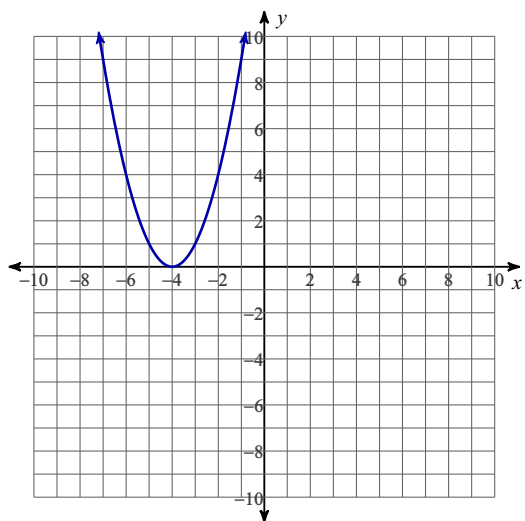
1)  $f(x) = x^2 + 5$

Transformation: Move up 5 units

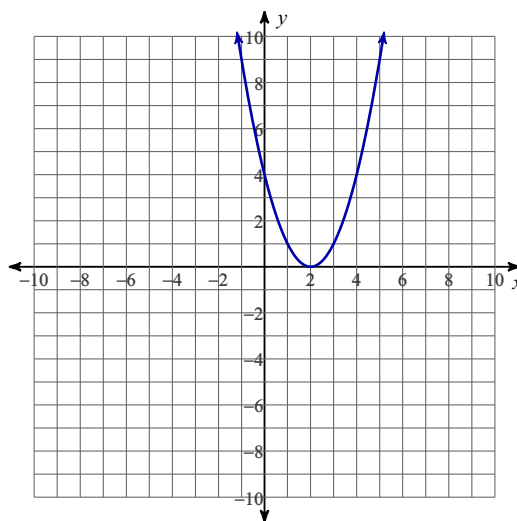
2)  $f(x) = x^2 - 3$

Transformation: Move down 3 units

3)  $f(x) = (x + 4)^2$

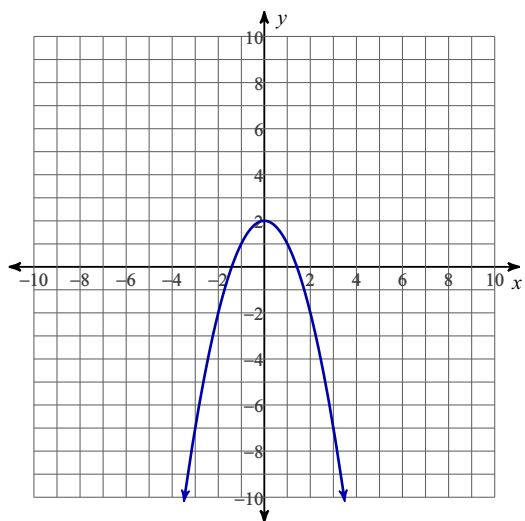
Transformation: Move left 4 units

4)  $f(x) = (x - 2)^2$

Transformation: Move right 2 units

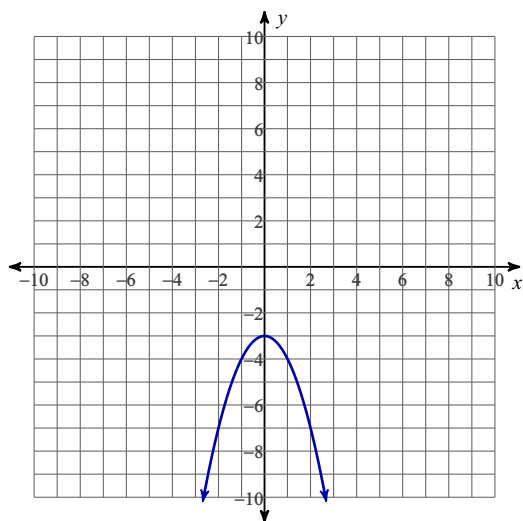
5)  $f(x) = -x^2 + 2$

Transformation: Reflect, up 2 units



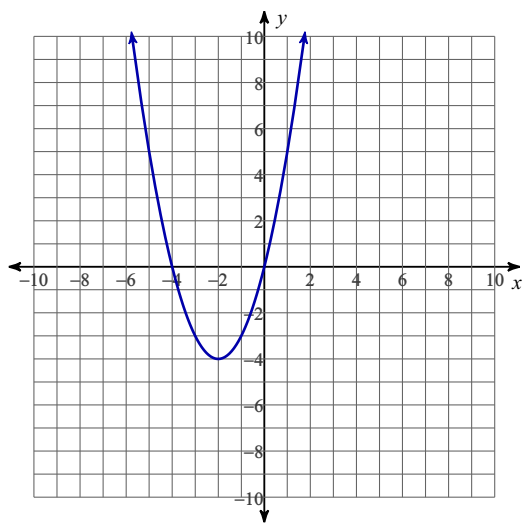
6)  $f(x) = -x^2 - 3$

Transformation: Reflect, down 3 units



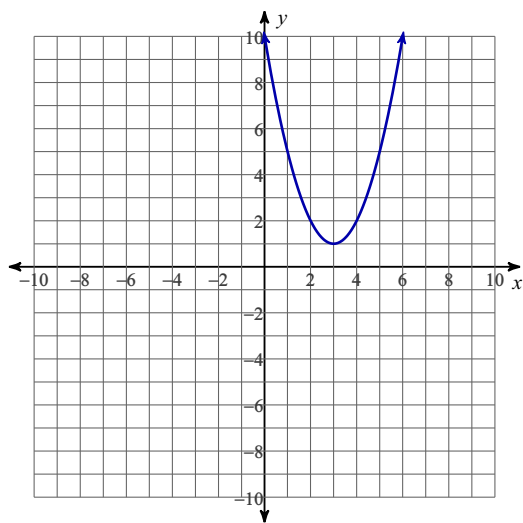
7)  $f(x) = (x + 2)^2 - 4$

Transformation: left 2, down 4



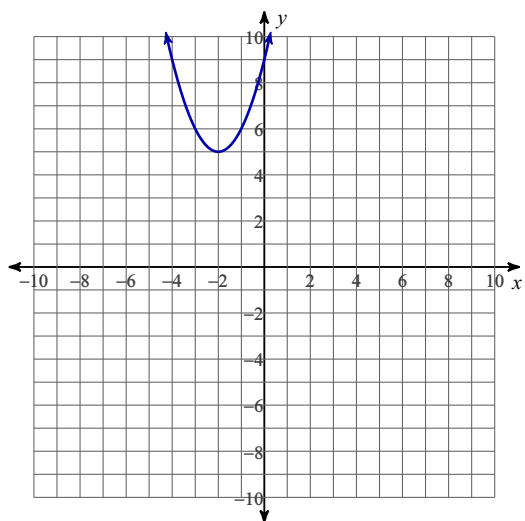
8)  $f(x) = (x - 3)^2 + 1$

Transformation: right 3, up 1



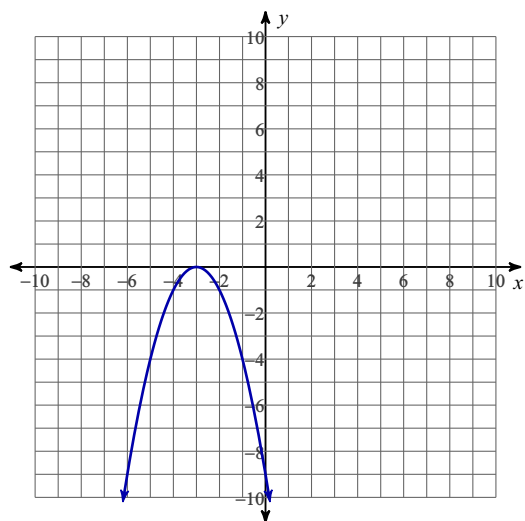
9)  $f(x) = (x + 2)^2 + 5$

Transformation: \_left 2, up 5\_



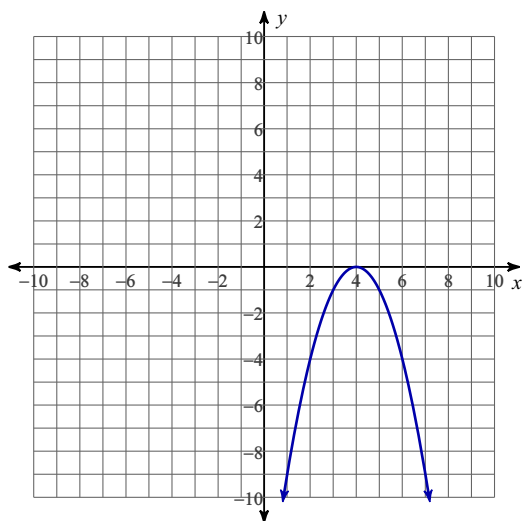
10)  $f(x) = -(x + 3)^2$

Transformation: \_Reflect, left 3\_



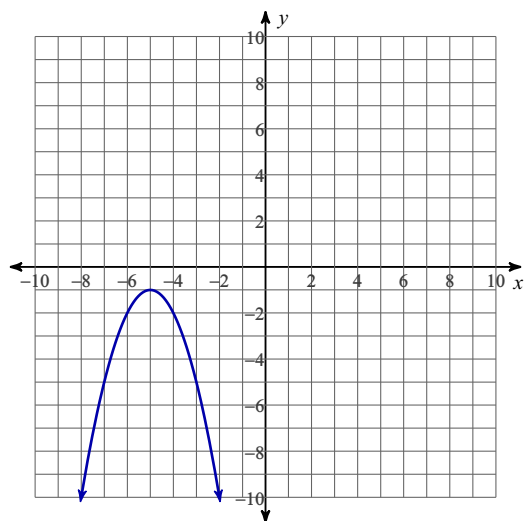
11)  $f(x) = -(x - 4)^2$

Transformation: \_Reflect, right 4\_



12)  $f(x) = -(x + 5)^2 - 1$

Transformation: \_Reflect, left 5, down 1\_

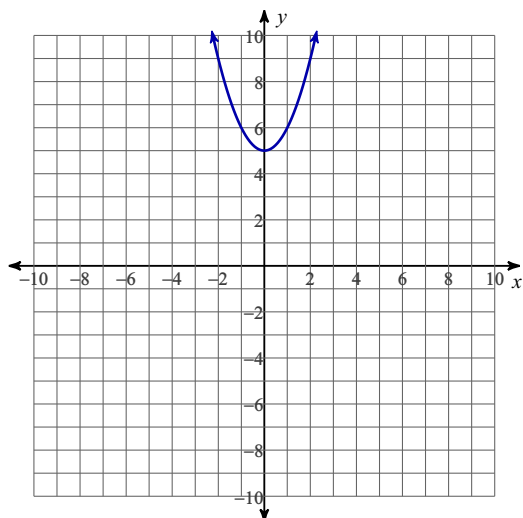


## Graphing Quadratic Functions Answer Key

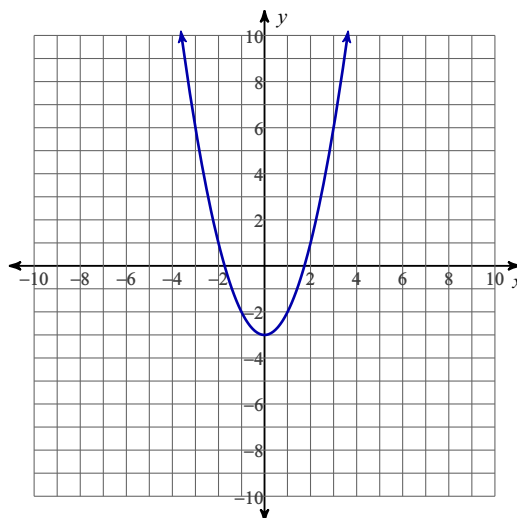
Date \_\_\_\_\_ Period \_\_\_\_\_

**Graph each transformation of  $f(x) = x^2$  and describe how it compares to the parent function.**

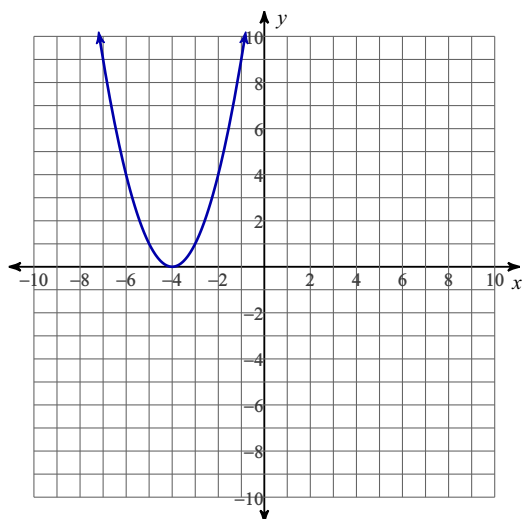
1)  $f(x) = x^2 + 5$

Transformation: Move up 5 units

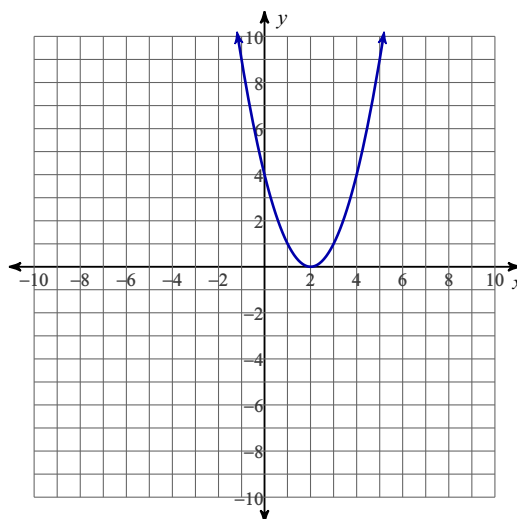
2)  $f(x) = x^2 - 3$

Transformation: Move down 3 units

3)  $f(x) = (x + 4)^2$

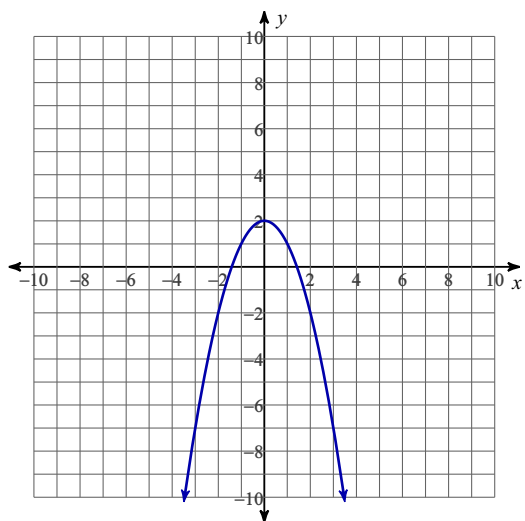
Transformation: Move left 4 units

4)  $f(x) = (x - 2)^2$

Transformation: Move right 2 units

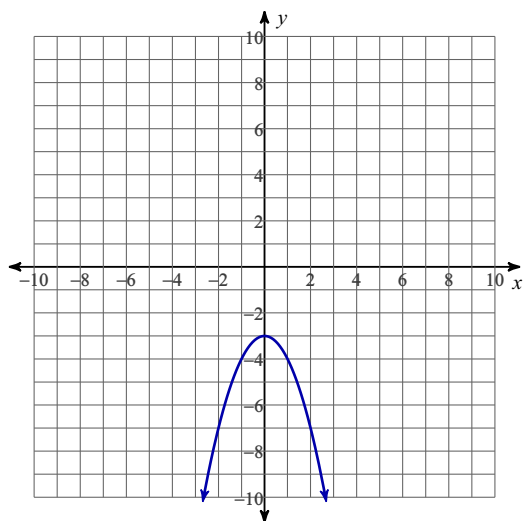
5)  $f(x) = -x^2 + 2$

Transformation: Reflect, up 2 units



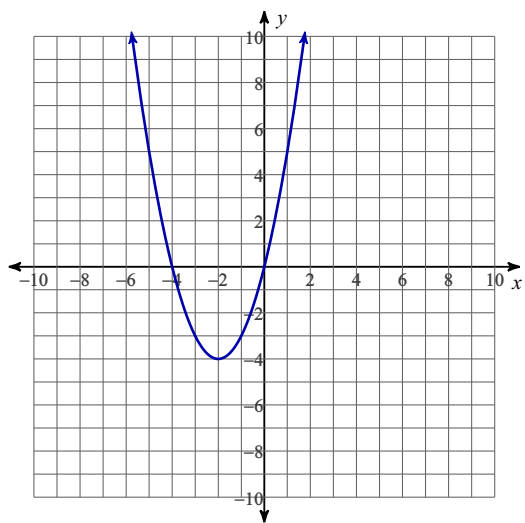
6)  $f(x) = -x^2 - 3$

Transformation: Reflect, down 3 units



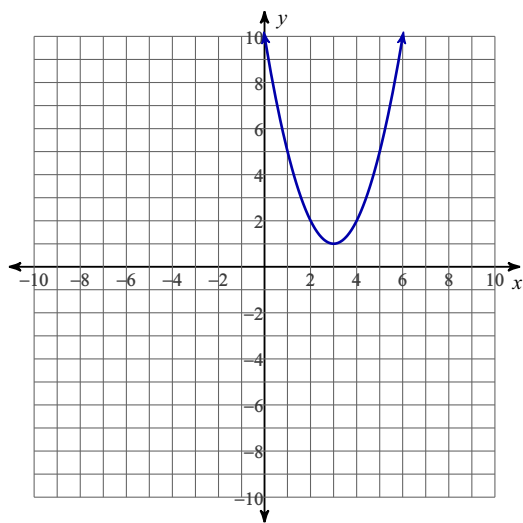
7)  $f(x) = (x + 2)^2 - 4$

Transformation: left 2, down 4



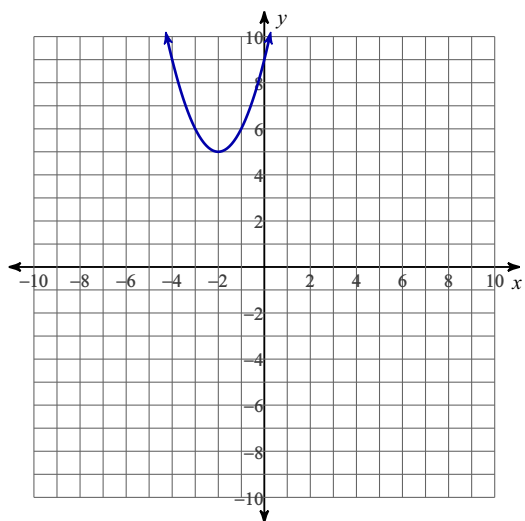
8)  $f(x) = (x - 3)^2 + 1$

Transformation: right 3, up 1



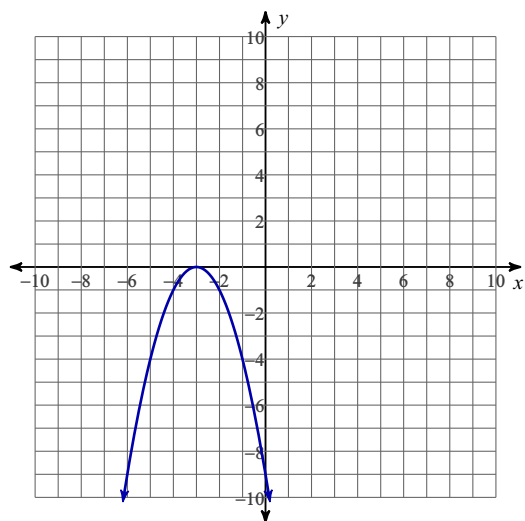
9)  $f(x) = (x + 2)^2 + 5$

Transformation: \_left 2, up 5\_



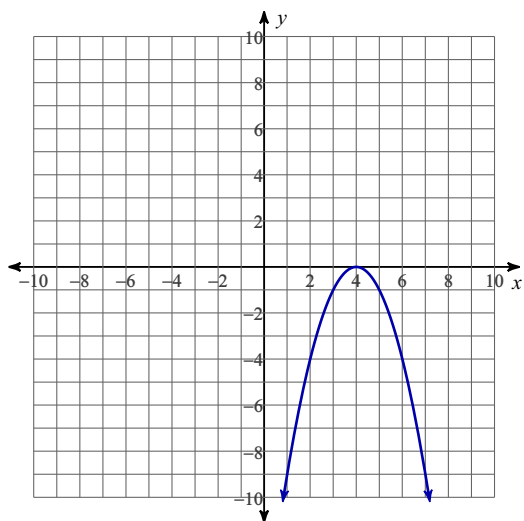
10)  $f(x) = -(x + 3)^2$

Transformation: \_Reflect, left 3\_



11)  $f(x) = -(x - 4)^2$

Transformation: \_Reflect, right 4\_



12)  $f(x) = -(x + 5)^2 - 1$

Transformation: \_Reflect, left 5, down 1\_

