

## Functions: Lesson 6

### Parent Functions and Translations: Worksheet 1

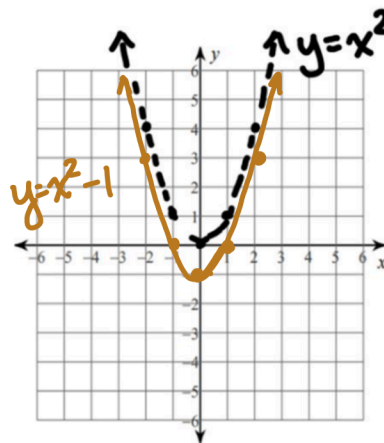
Name: Answer Key



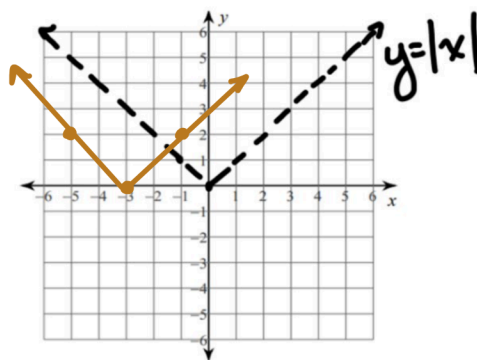
#### Directions:

- 1) Name the parent function.
- 2) Describe the translation (how many units which way).
- 3) Draw the function on the graph.

$y = x^2 - 1$     Parent Function:  $y = x^2$   
Translation: ↓ 1  
(down 1)



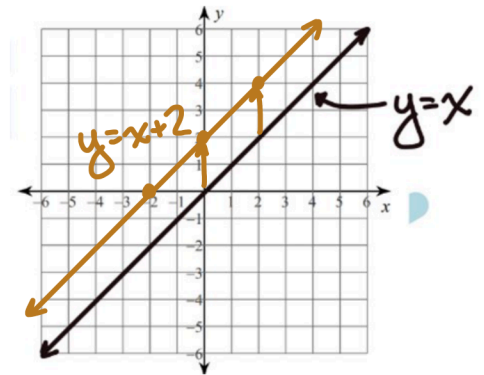
$y = |x + 3|$     Parent Function:  $y = |x|$   
Translation: \* left 3



$$y = x + 2$$

Parent Function:  $y = x$

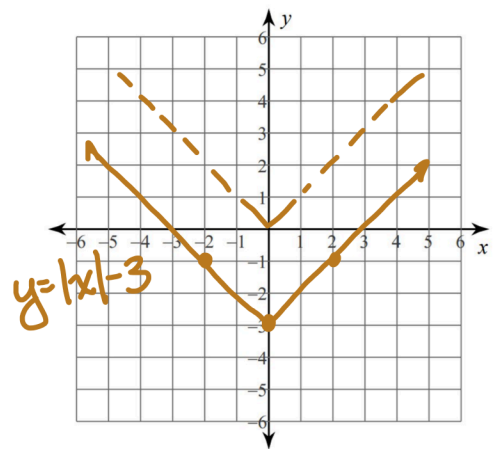
Translation: up 2



$$y = |x| - 3$$

Parent Function:  $y = |x|$

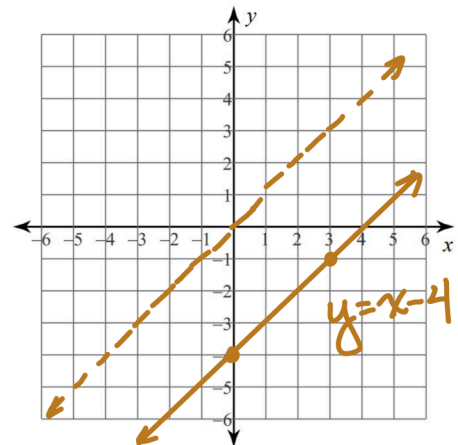
Translation: down 3



$$y = x - 4$$

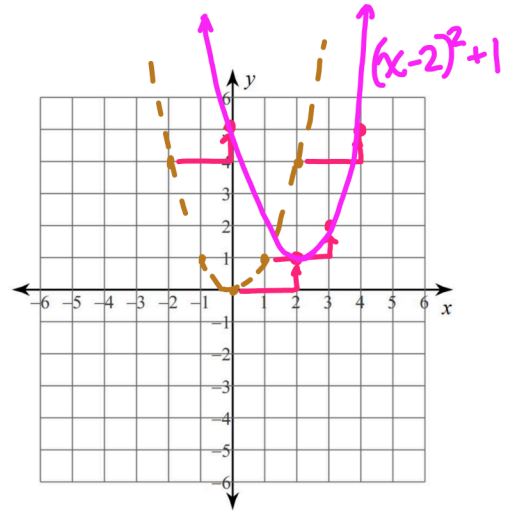
Parent Function:  $y = x$

Translation: down 4



$y = (x - 2)^2 + 1$  Parent Function:  $y = x^2$

Translation: right 2,  
up 1



$y = |x + 1| + 2$  Parent Function:  $y = |x|$

Translation: left 1,  
up 2

