

Functions: Lesson 6

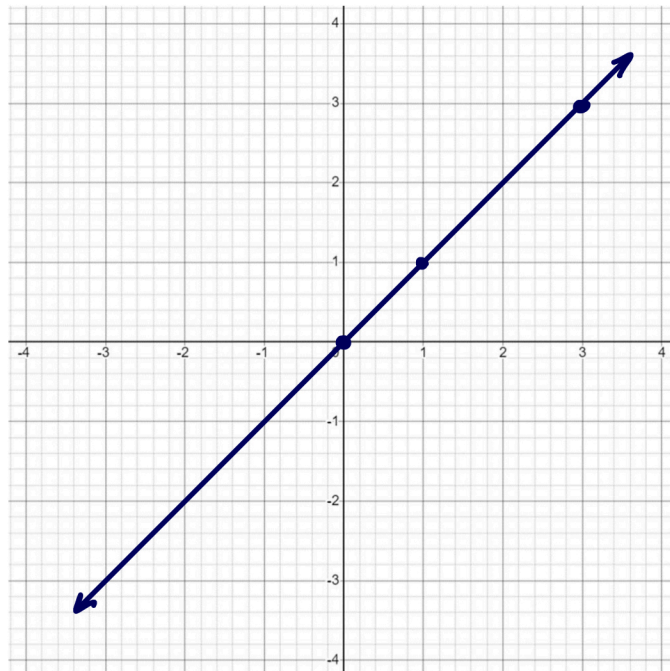
Parent Functions and Translations: Notes

Name: Answer Key!



$y = x$

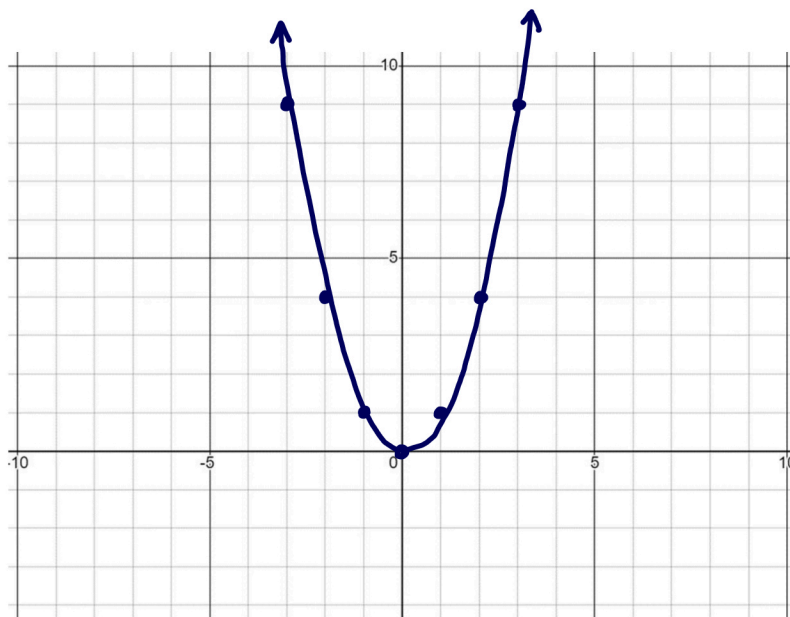
x	y
0	0
1	1
3	3



$y = x^2$

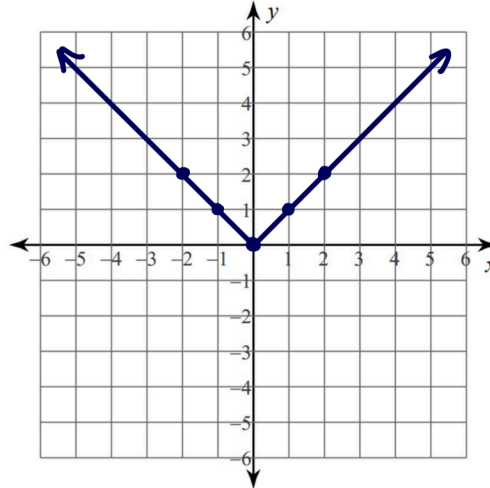
x	y
0	0
1	1
2	4
3	9

x	y
-1	1
-2	4
-3	9



$$y = |x|$$

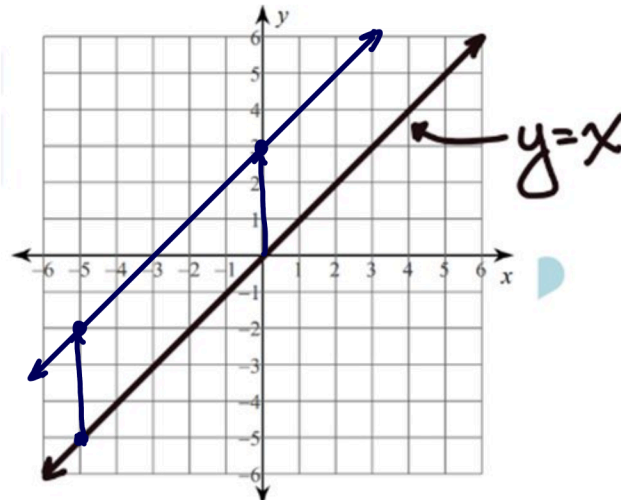
x	y	x	y
0	0	-1	1
1	1	-2	2
2	2		



$$y = x + 3$$

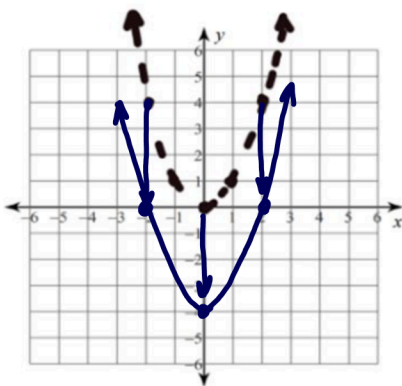
vertical

translation of +3

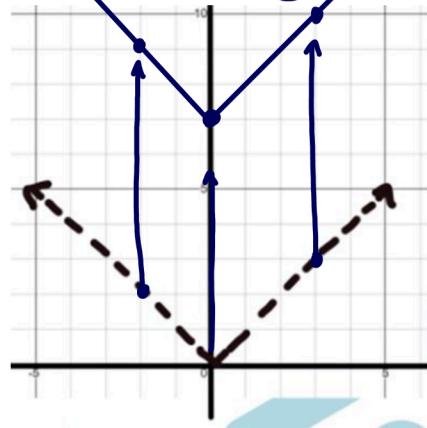


When a number is outside my parent function, like

$$y = x^2 - 4$$



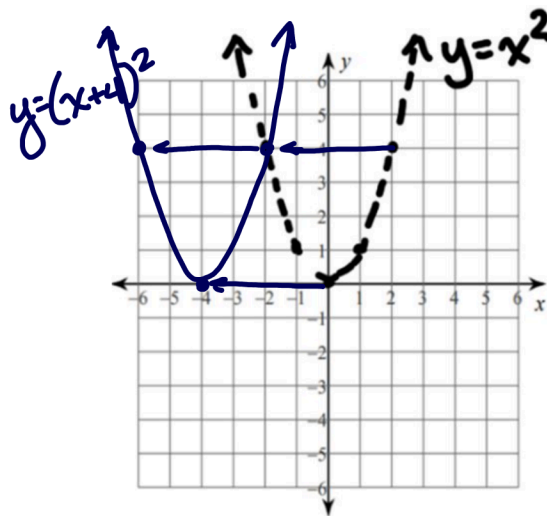
$$y = |x| + 7$$



I have a vertical translation by that amount.

$$y = (x + 4)^2 \quad \leftarrow 4$$

"opposite" land



$$y = |x - 2| \quad \rightarrow 2$$

