

NAME: Key

UNIT 8 - GRAPHING QUADRATICS

STUDY GUIDE FOR QUIZ #1



Describe in words how the parent function would be transformed.

1. $y = 5x^2$

vertical stretch
b.a.f.o. 5

2. $y = -1/2x^2$

reflect x-axis
vertical shrink
b.a.f.o. $\frac{1}{2}$

3. $y = (x - 5)^2$

Right 5

4. $y = -x^2 - 12$

reflect x-axis
down 12

5. $y = 5(-x)^2$

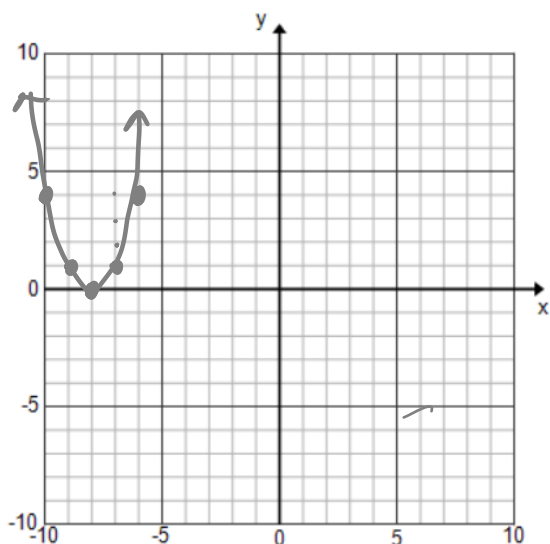
reflect y-axis
vertical stretch
b.a.f.o. 5

6. $y = (x + 12)^2 + 16$

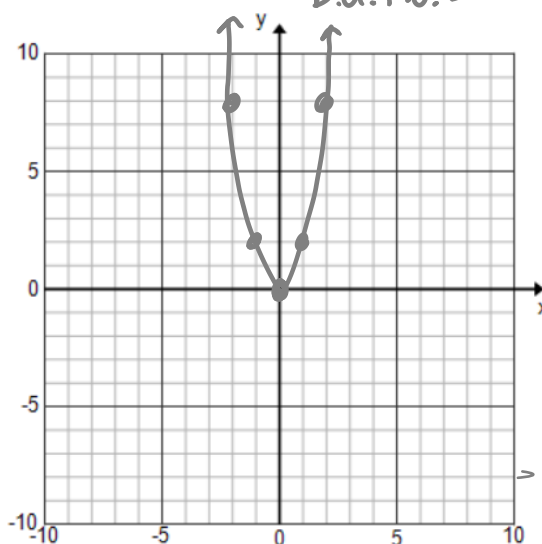
left 12
up 16

Graph the following Quadratic Functions.

7. $y = (x + 8)^2$ left 8



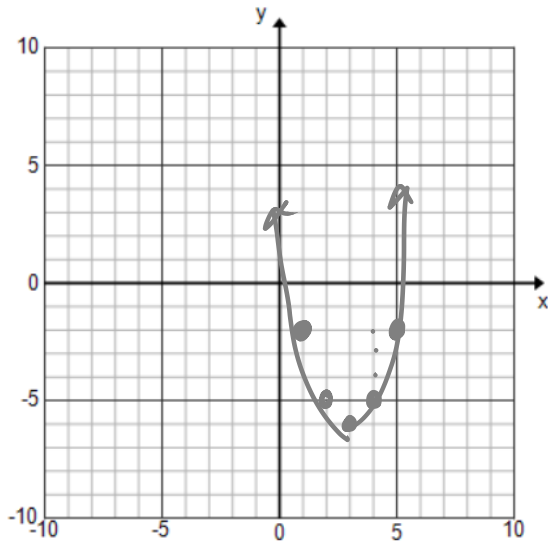
8. $y = 2x^2$ vertical stretch
b.a.f.o. 2



Graph the following Quadratic Functions.

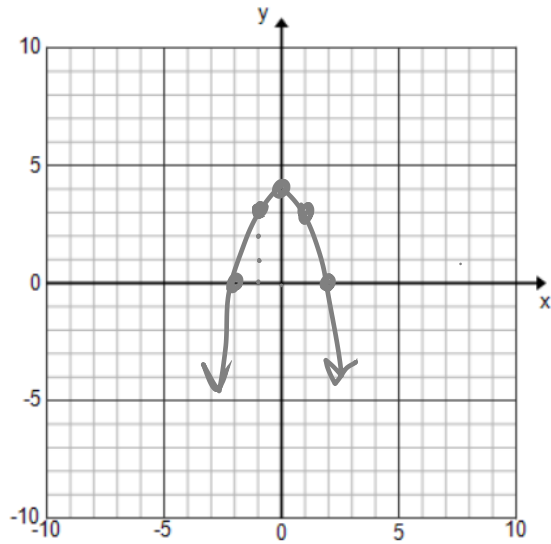
9. $y = (x - 3)^2 - 6$

Right 3
down 6

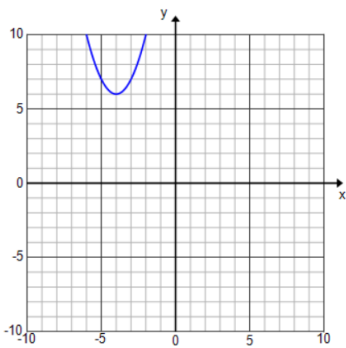


10. $y = -x^2 + 4$

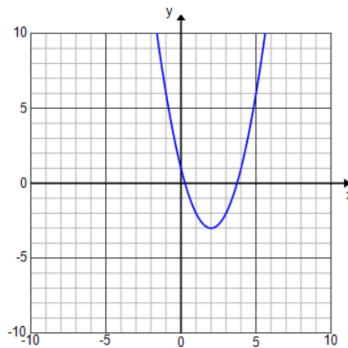
reflect x-axis
up 4



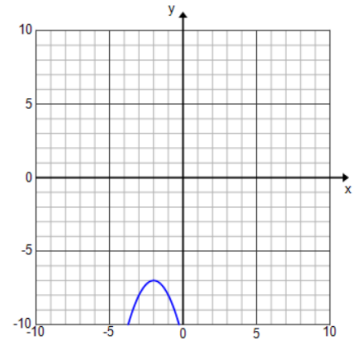
11-13: State the Domain, Range, and End Behavior of the following Quadratic Functions:



Domain: $(-\infty, \infty)$
 Range: $[6, \infty)$
 As $x \rightarrow \infty$, $y \rightarrow \infty$
 As $x \rightarrow -\infty$, $y \rightarrow \infty$



Domain: $(-\infty, \infty)$
 Range: $[-3, \infty)$
 As $x \rightarrow \infty$, $y \rightarrow \infty$
 As $x \rightarrow -\infty$, $y \rightarrow \infty$



Domain: $(-\infty, \infty)$
 Range: $(-\infty, -7]$
 As $x \rightarrow \infty$, $y \rightarrow -\infty$
 As $x \rightarrow -\infty$, $y \rightarrow -\infty$