
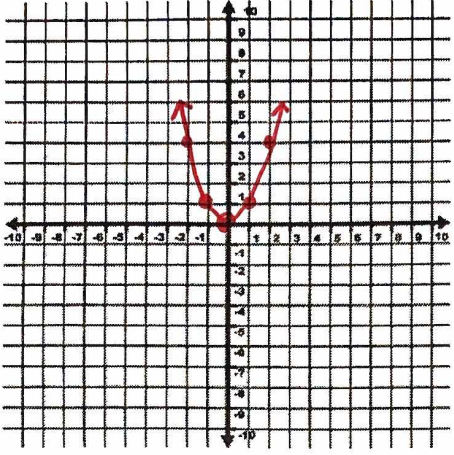


AA PREP: GRAPHING QUADRATIC FUNCTIONS WITH TRANSFORMATIONS—WORKSHEET #1


Graph the quadratic parent function. Then, graph each of the following quadratic functions using transformations. State domain and range.


1. $y = x^2$ 

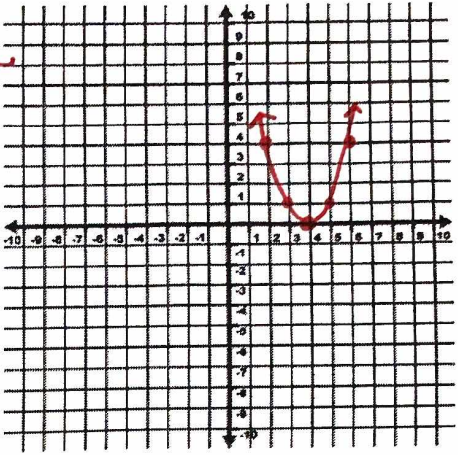
x	y
-2	4
-1	1
0	0
1	1
2	4




Domain: \mathbb{R} $(-\infty, \infty)$ Range: $y \geq 0$ $[0, \infty)$


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

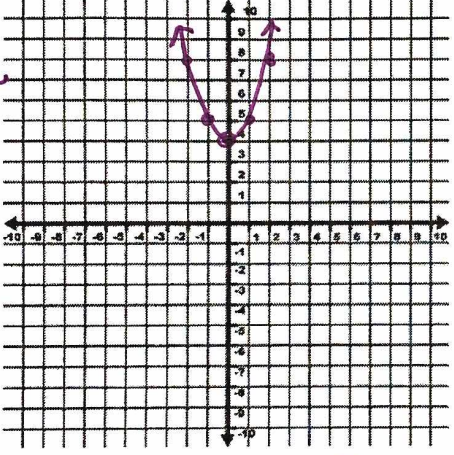
H TRANSLATION 4 R 




Domain: \mathbb{R} $(-\infty, \infty)$ Range: $y \geq 0$ $[0, \infty)$


3. $g(x) = x^2 + 4$ 

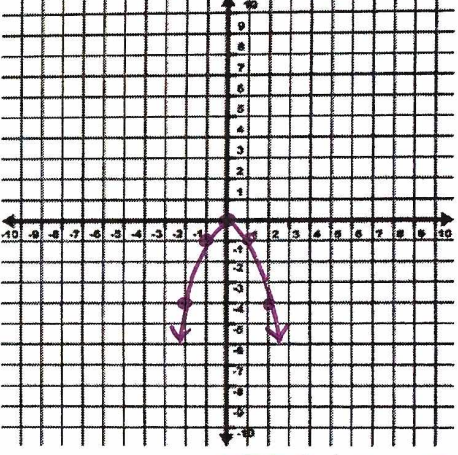
V TRANSLATION 4 U 




Domain: \mathbb{R} $(-\infty, \infty)$ Range: $y \geq 4$ $[4, \infty)$


4. $g(x) = -x^2$ 

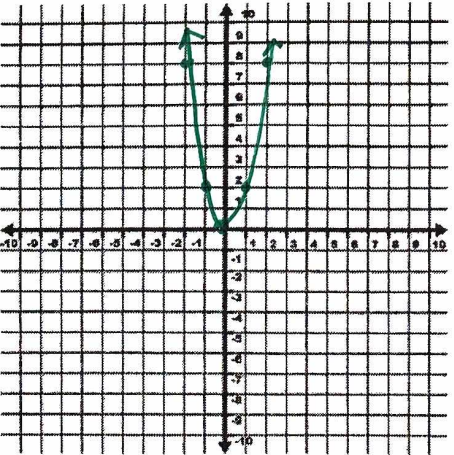
REFLECTS OVER X-AXIS 




Domain: \mathbb{R} $(-\infty, \infty)$ Range: $y \leq 0$ $(-\infty, 0]$


5. $f(x) = 2x^2$ 

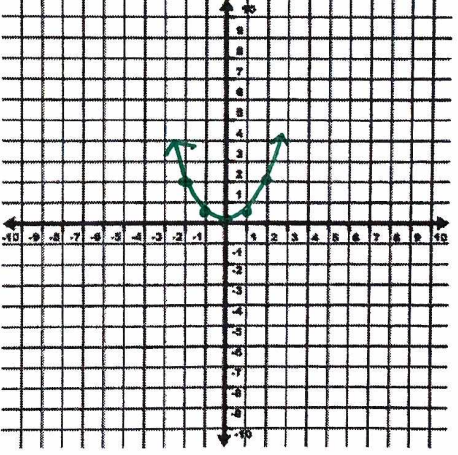
V STRETCH $\times 2$
 (y-VALUES) $\times 2$ 



Domain: \mathbb{R} $(-\infty, \infty)$ Range: $y \geq 0$ $[0, \infty)$

6. $y = \frac{1}{2}x^2$ 

V COMP $\times \frac{1}{2}$
 (y-VALUES) $\times \frac{1}{2}$ 



Domain: \mathbb{R} $(-\infty, \infty)$ Range: $y \geq 0$ $[0, \infty)$