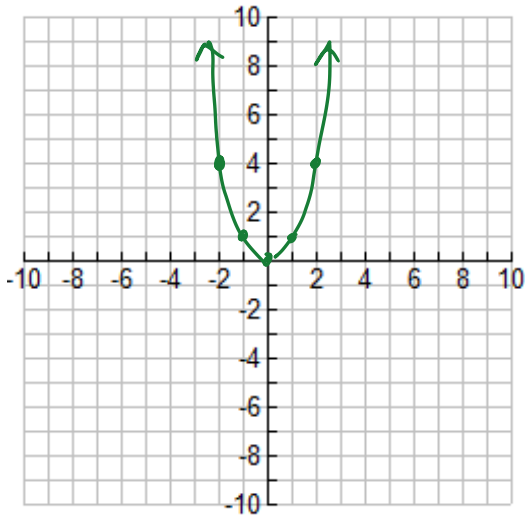


Graphing Quadratic Functions – Stretches, Shrinks & Reflections

Graph the quadratic parent function by using the table. Describe three key characteristics of the graph.



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

1.

2. Lots of Great ideas 😊

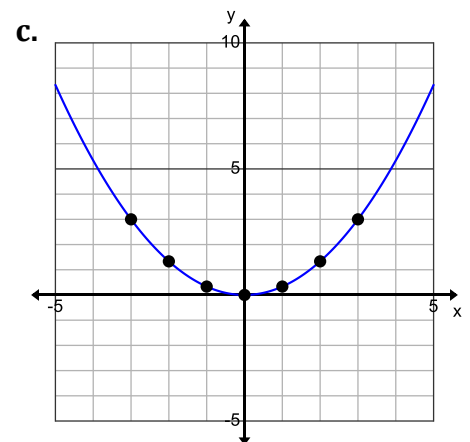
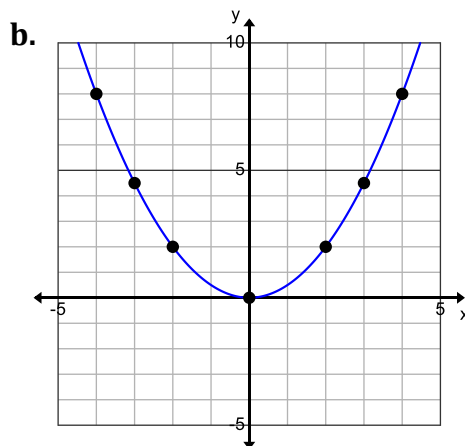
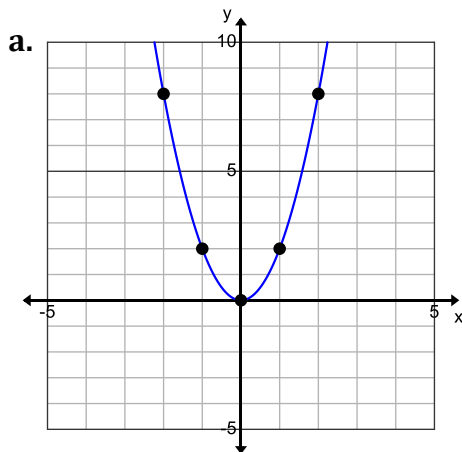
3.

(#1-3) Match the quadratic function with its graph.

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

2. $y = \frac{1}{3}x^2$ C

3. $y = 2x^2$ A



Throw Back!

4. Identify the domain, range in the graphs above. Express your answers in interval notation.

Domain: $(-\infty, \infty)$

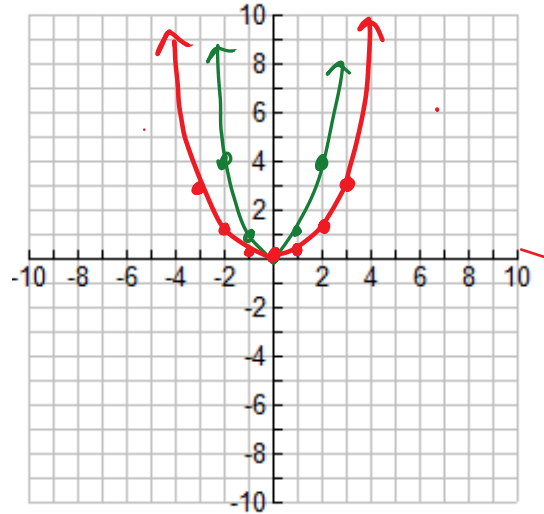
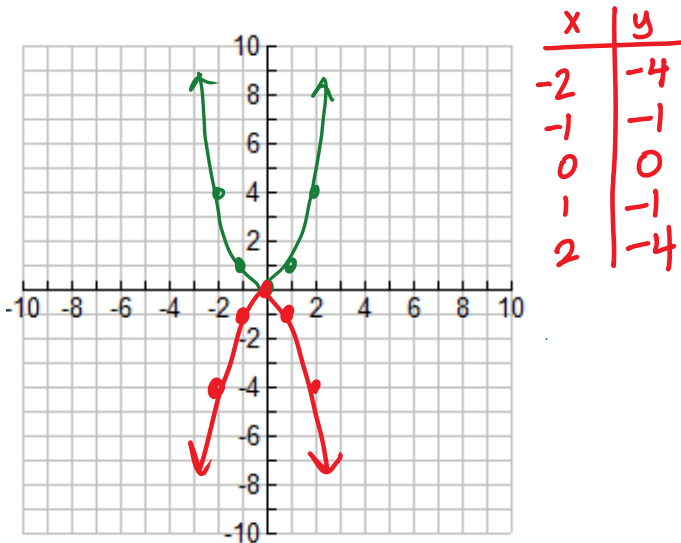
Range: $[0, \infty)$

Algebra G

(#5-6) Identify the transformations taking place on the parent function $y = x^2$. Then, graph the function with at least five accurate points. (Sketch a quick table if you need to).

5. $y = -x^2$ reflection over x-axis

6. $y = \frac{1}{3}x^2$ vertical shrink b.a.f. $\frac{1}{3}$



(#7-9) Write an equation of a quadratic function that has been transformed accordingly.

7. Stretched vertically by a factor of 7.

$y = 7x^2$

8. Reflected over the x-axis.

$y = -x^2$

9. Shrunk vertically by a factor of $\frac{1}{5}$ and reflected over the x-axis

$y = -\left(\frac{1}{5}\right)x^2$

A Look Ahead!

(#10-11) Identify the transformations taking place on the parent function $y = x^2$. Then, graph the function with at least five accurate points.

10. $y = x^2 - 4$

11. $y = (x+5)^2$

