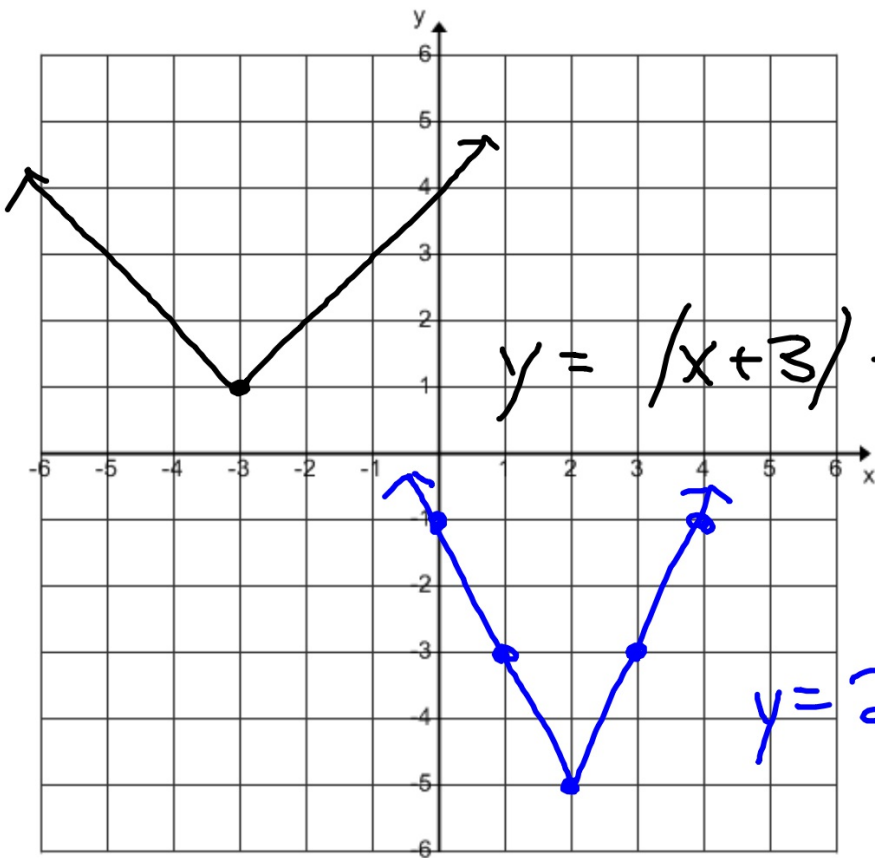


$$y = (x-1)^2 + 3$$

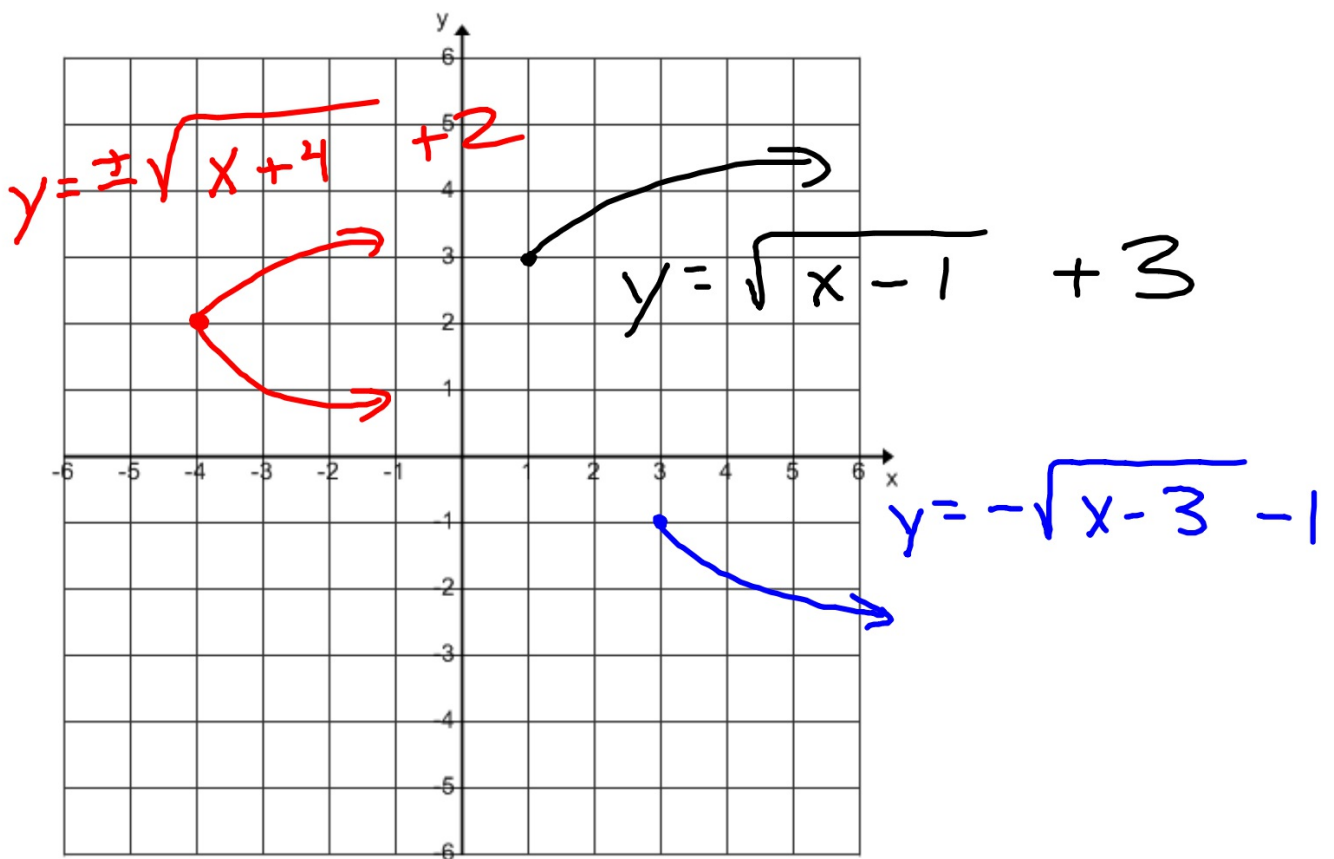
Vertex = (1, 3)

$$y = -(x+3)^2 + 2$$



$$y = |x+3| + 1$$

$$y = 2|x-2| - 5$$



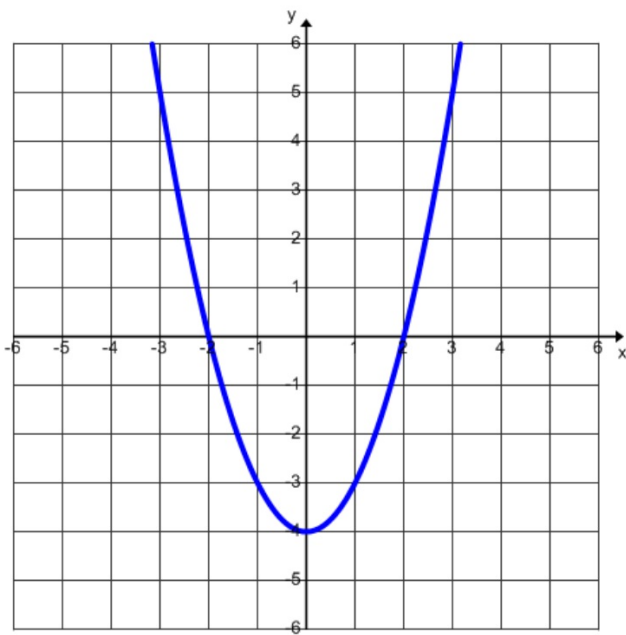
$$y = x^2$$

$$y = x^2 + 4 \rightarrow \text{slid it up 4}$$

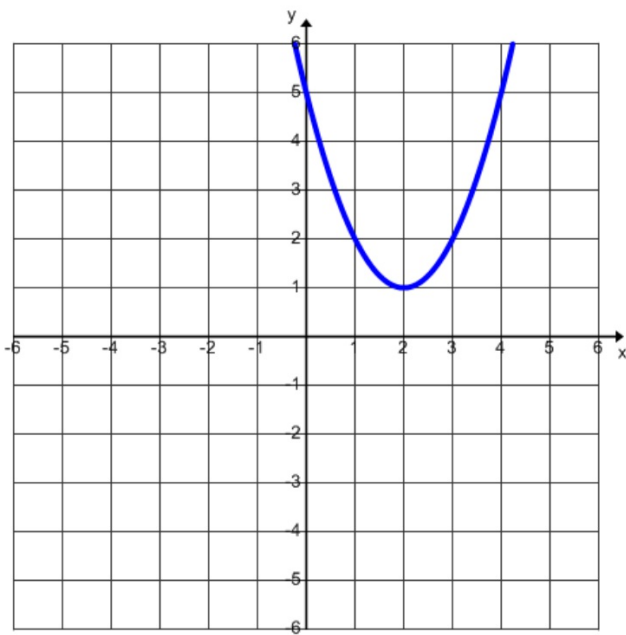
$$y = (x-1)^2 + 2 \rightarrow \text{slid right 1 and up 2}$$

$$y = 5x^2 \rightarrow \text{makes it skinner}$$

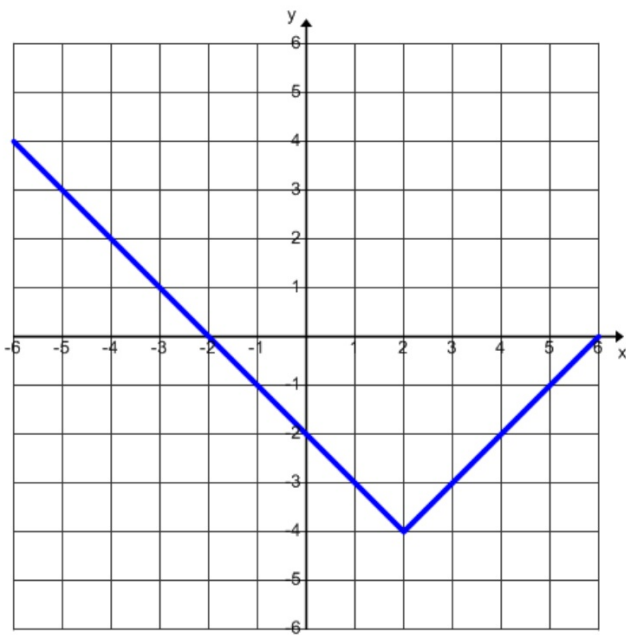




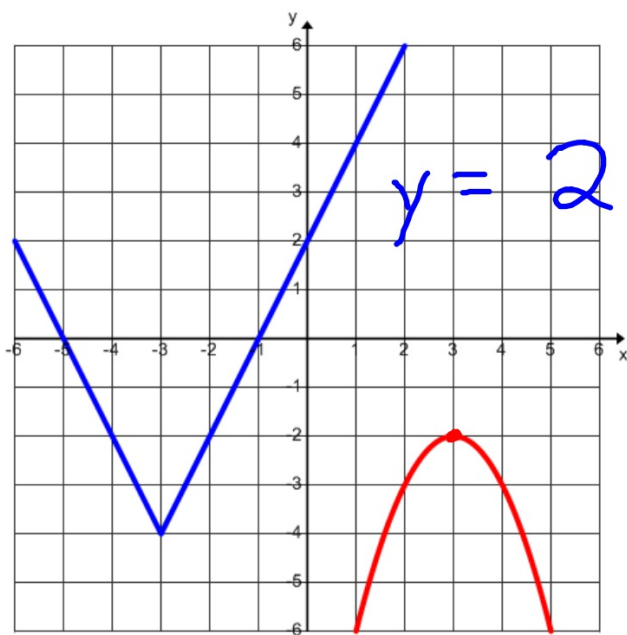
$$y = x^2 - 4$$



$$y = (x - 2)^2 + 1$$



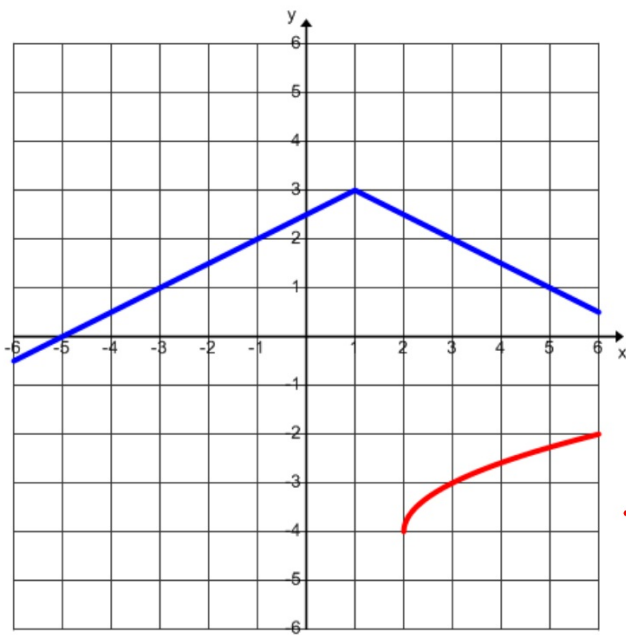
$$y = |x - 2| - 4$$



$$y = 2|x + 3| - 4$$

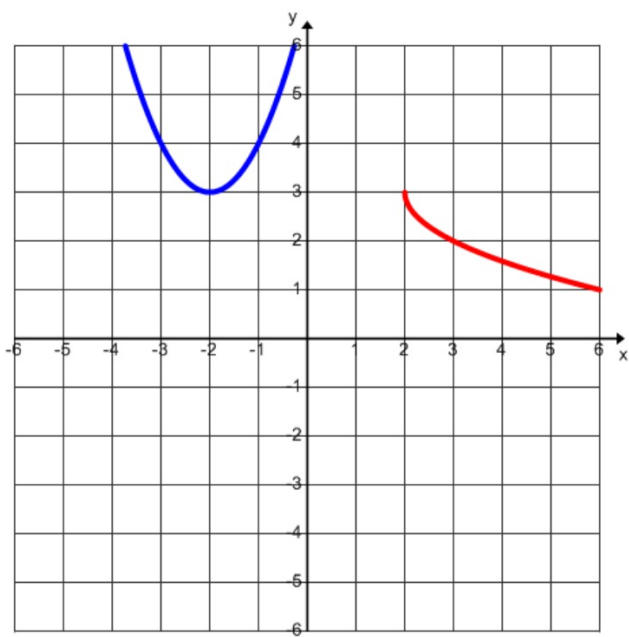
$$y = -(x - 3)^2 - 2$$

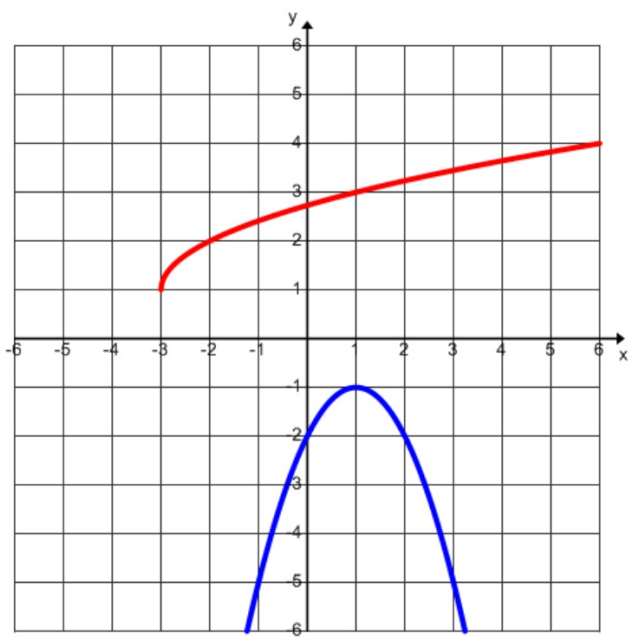


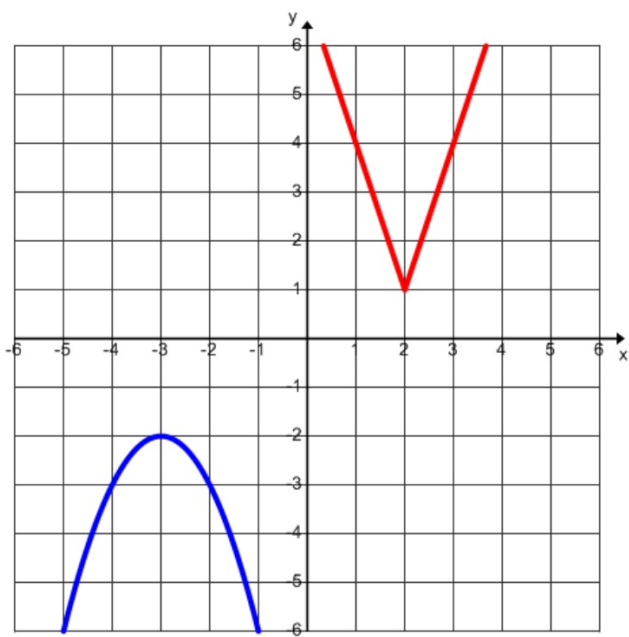


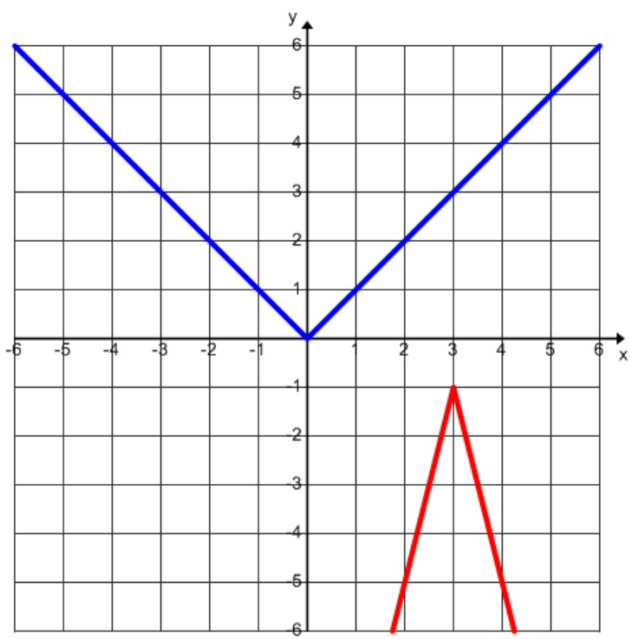
$$y = -\frac{1}{2} |x - 1| + 3$$

$$y = \sqrt{x - 2} - 4$$

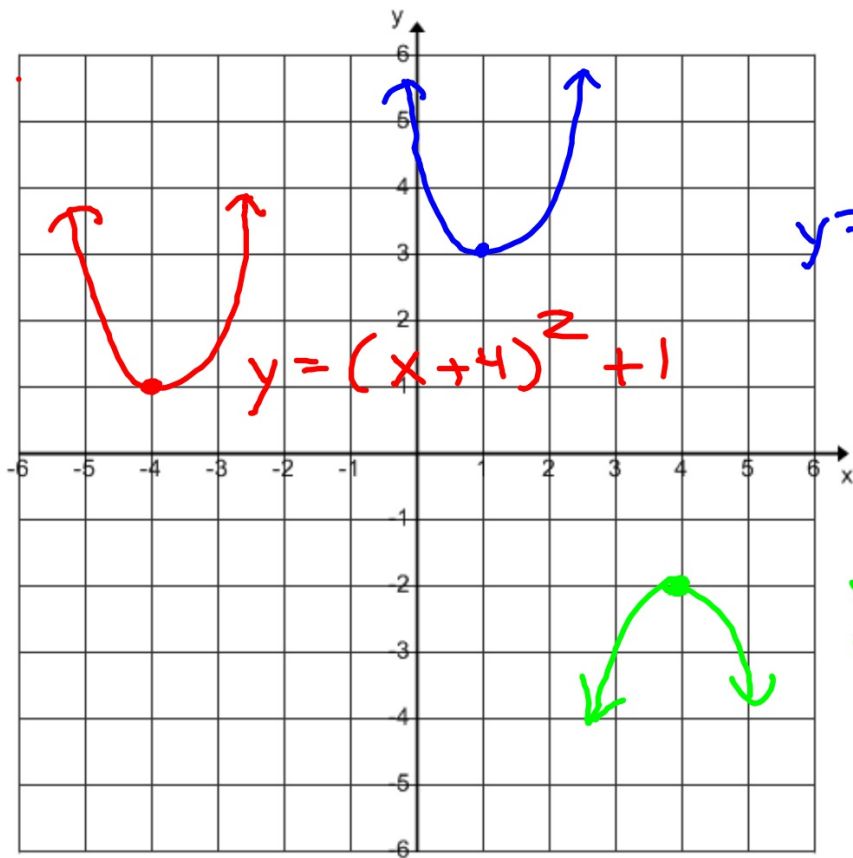










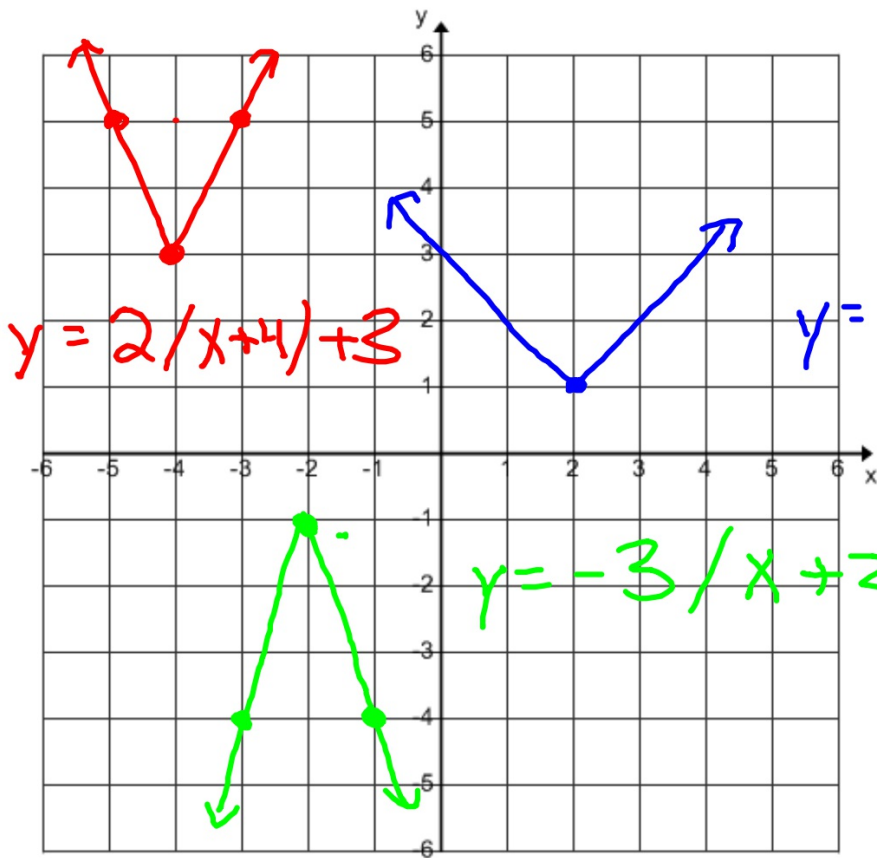


$$y = (x-1)^2 + 3$$

$$y = (x+4)^2 + 1$$

$$y = -(x-4)^2 - 2$$

Vertex = (4, -2)

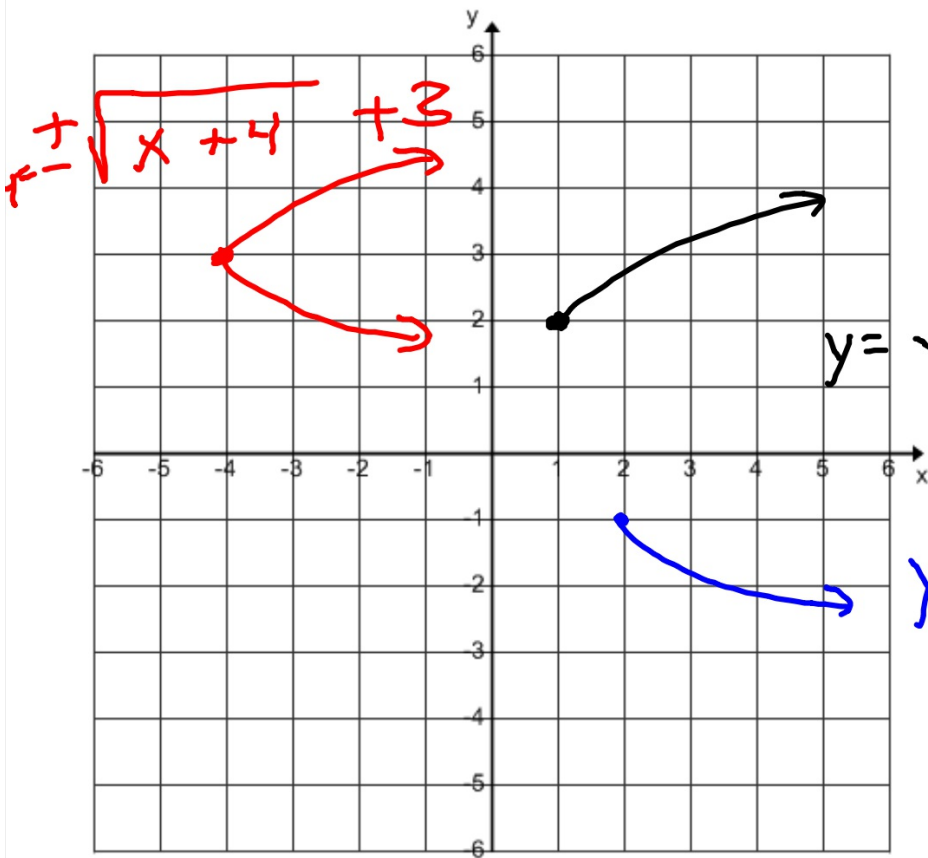


$$y = 2|x+4| + 3$$

$$y = |x-2| + 1$$

$$y = -3|x+2| - 1$$



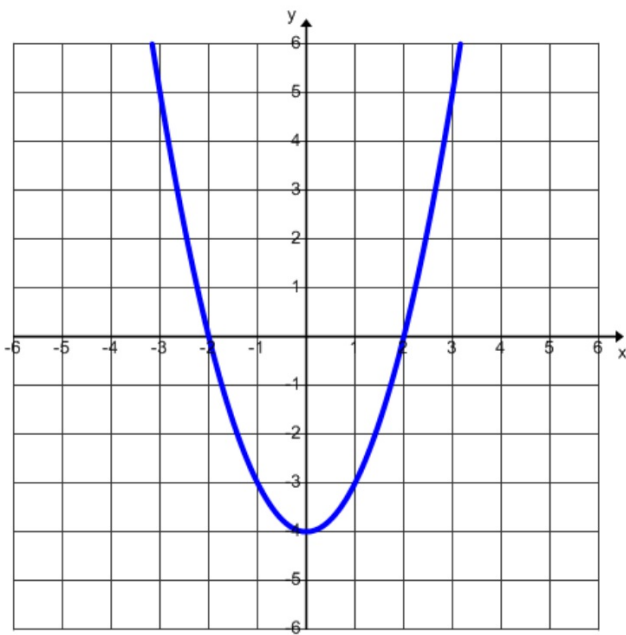


$$y = x^2$$

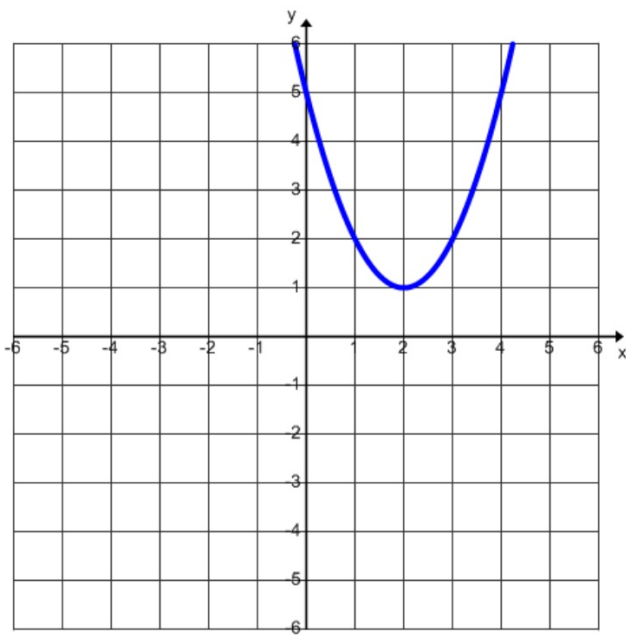
a.)  $y = x^2 + 4 \rightarrow$  slid 4 units up

$y = (x - 3)^2 \rightarrow$  slid 3 units right

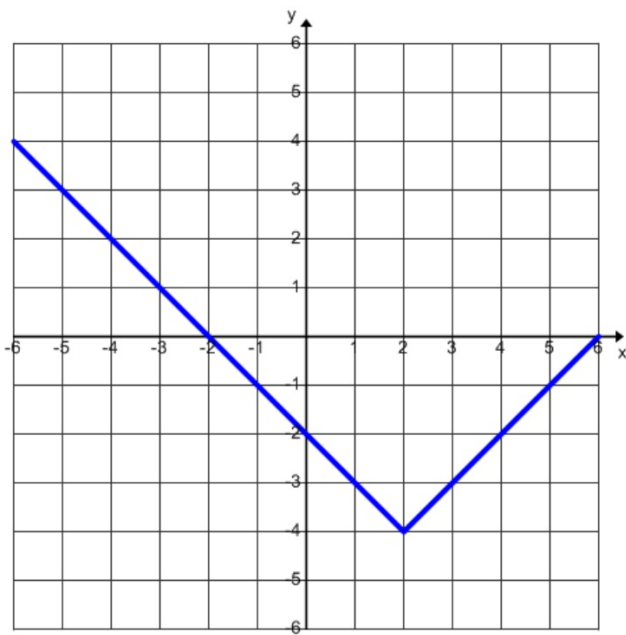
$y = 3x^2 \rightarrow$  gets skinnier



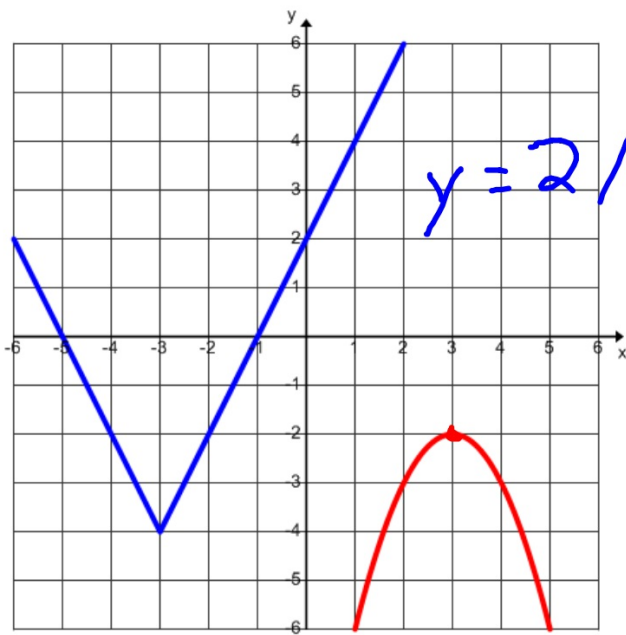
$$y = x^2 - 4$$



$$y = (x - 2)^2 + 1$$

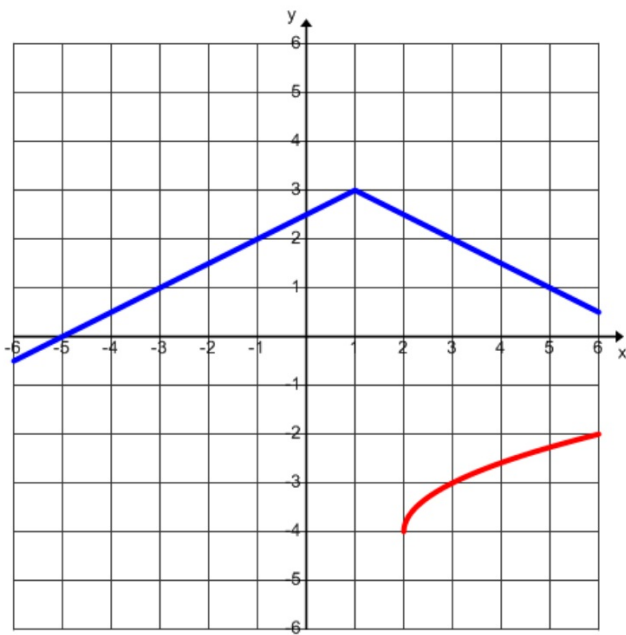


$$y = |x - 2| - 4$$



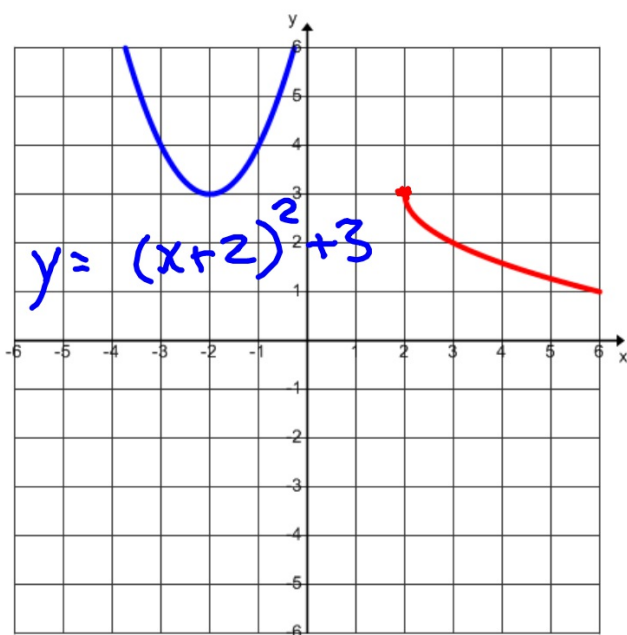
$$y = 2|x + 3| - 4$$

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



$$y = -\frac{1}{2} |x - 1| + 3$$

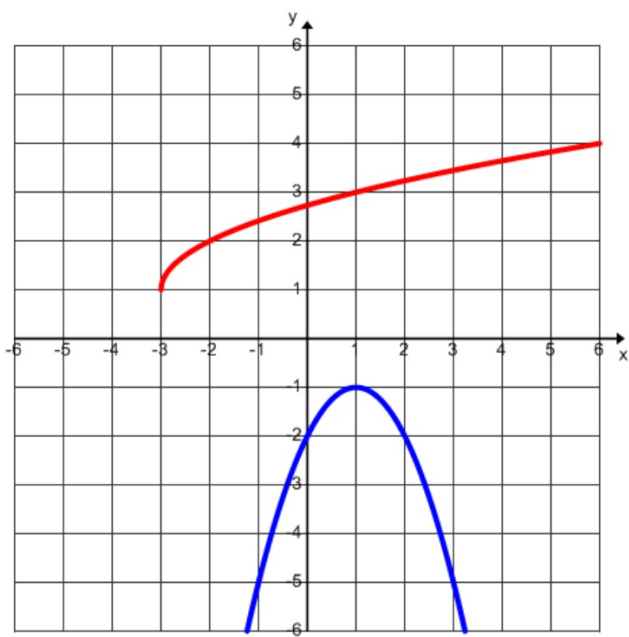
$$y = \sqrt{x - 2} - 4$$

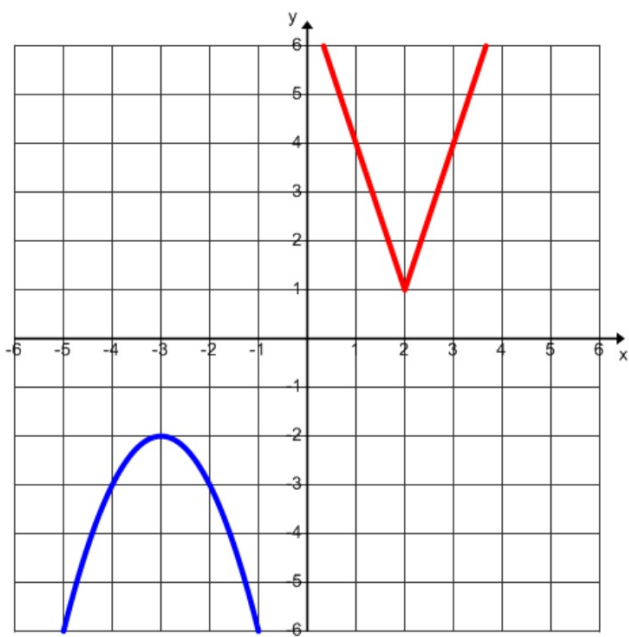


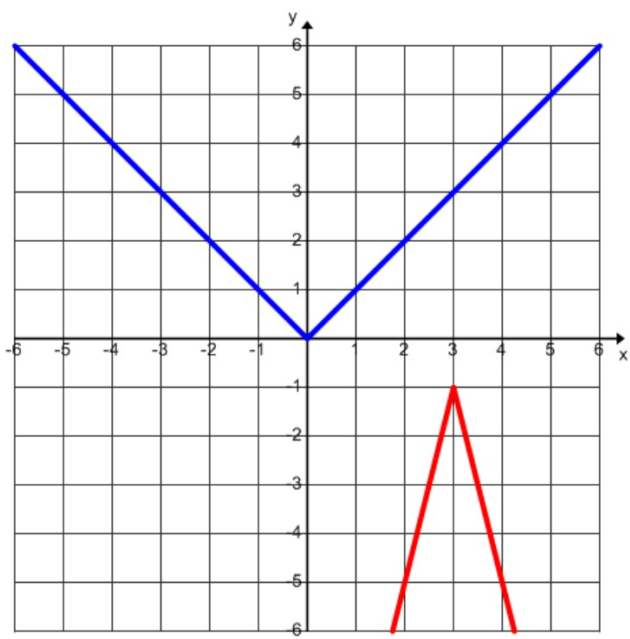
$$y = (x+2)^2 + 3$$

$$y = -\sqrt{x-2} + 3$$







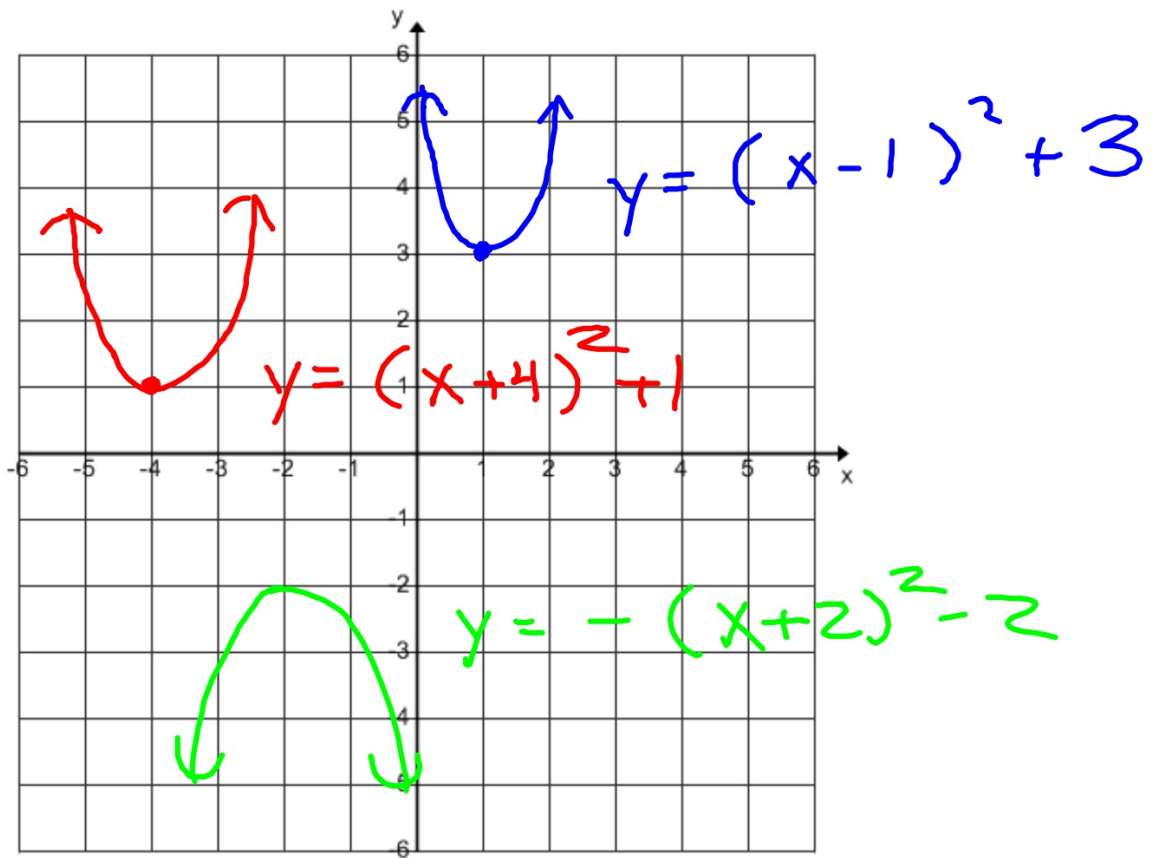


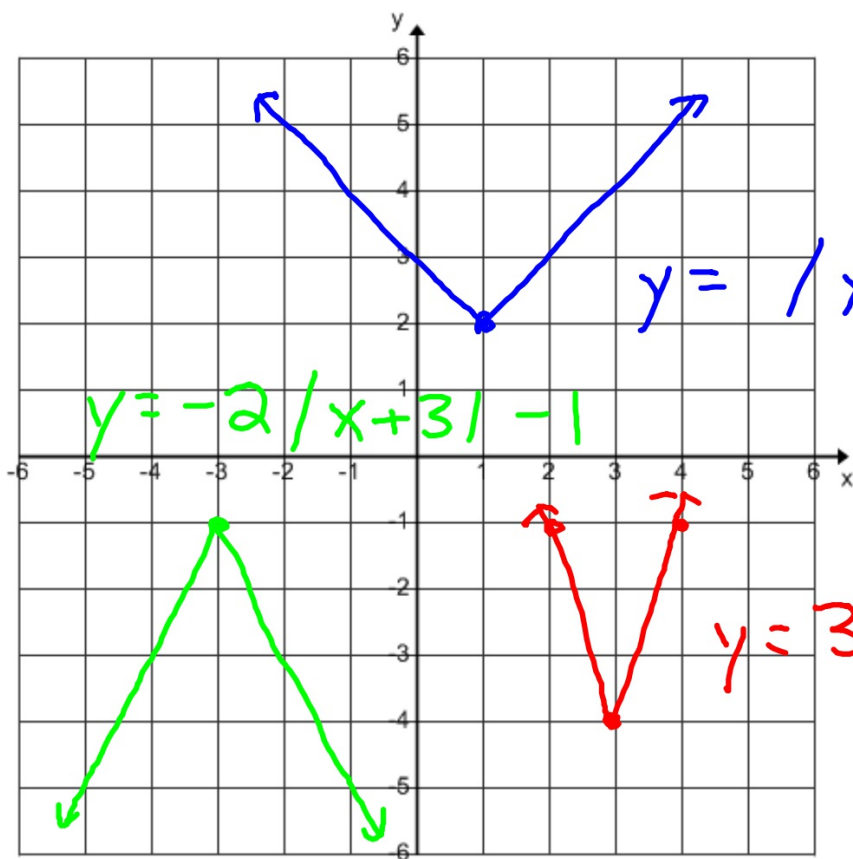
$y = x^2$  parent graph

a.)  $y = x^2 + 3 \rightarrow$  slid 3 units up

$y = (x-2)^2 - 1 \rightarrow$  slid right 2 and  
down 1.

$y = 3x^2 \rightarrow$  makes it skinnier

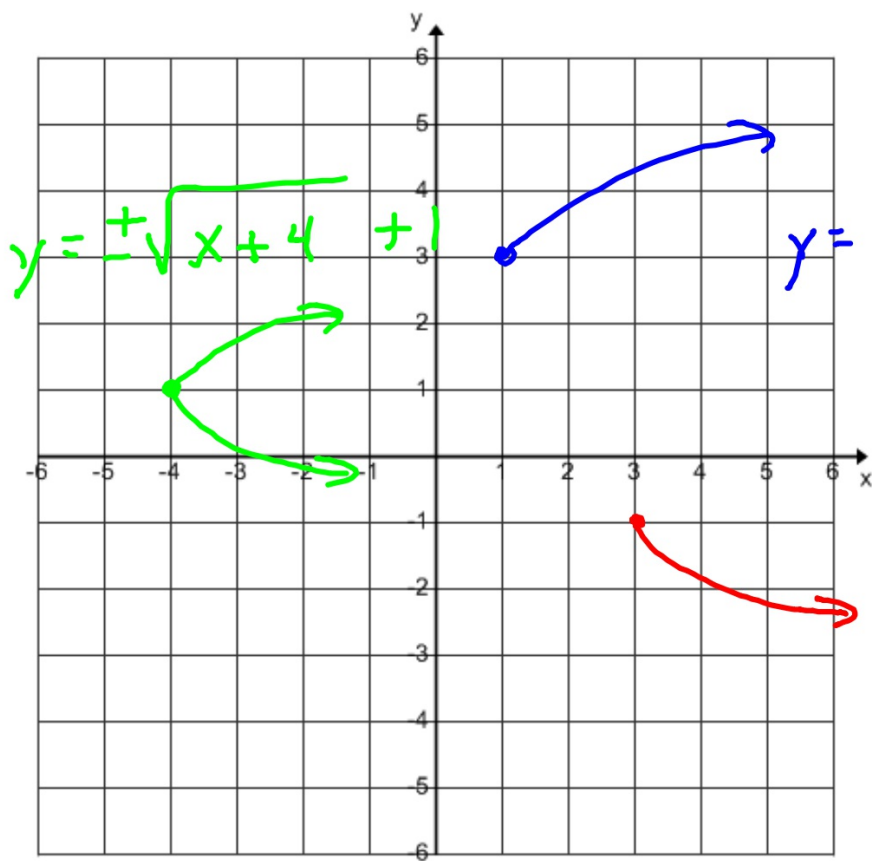




$$y = |x - 1| + 2$$

$$y = -2|x + 3| - 1$$

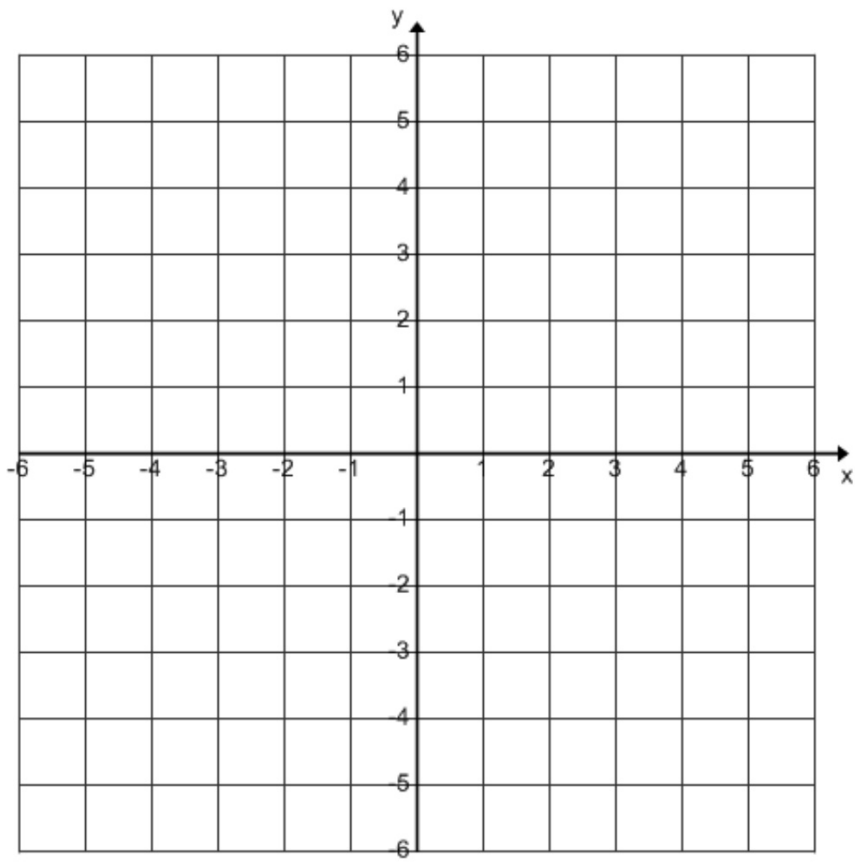
$$y = 3|x - 3| - 4$$



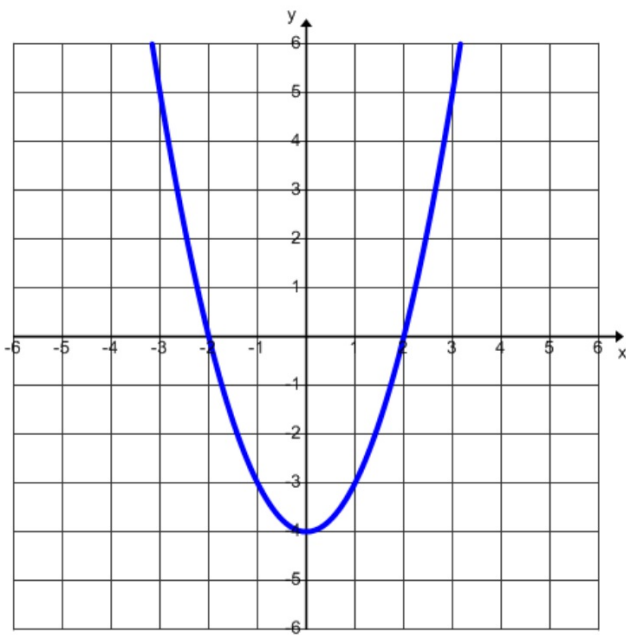
$$y = \pm\sqrt{x+4} + 1$$

$$y = \sqrt{x-1} + 3$$

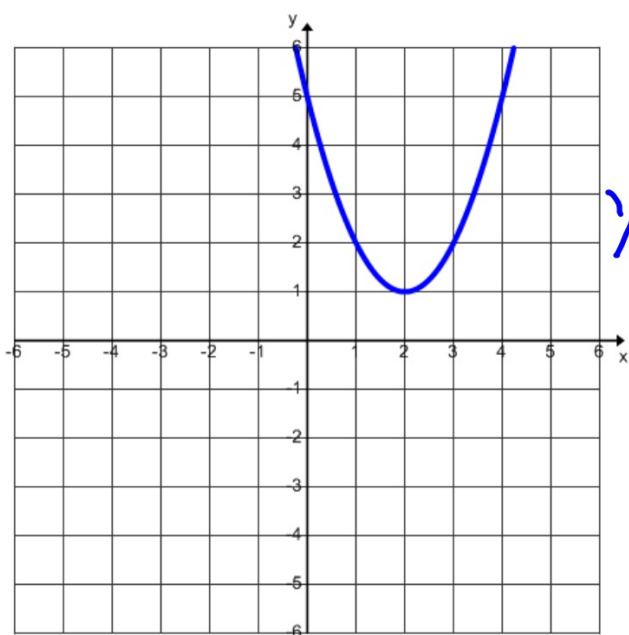
$$y = -\sqrt{x-3} - 1$$



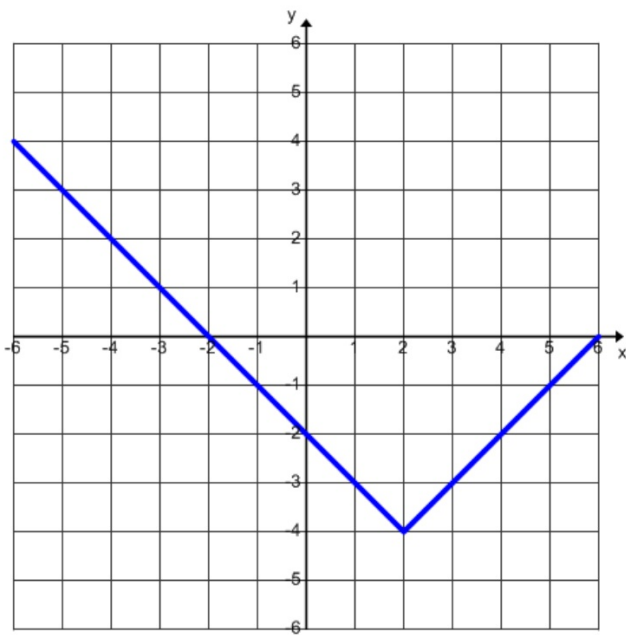




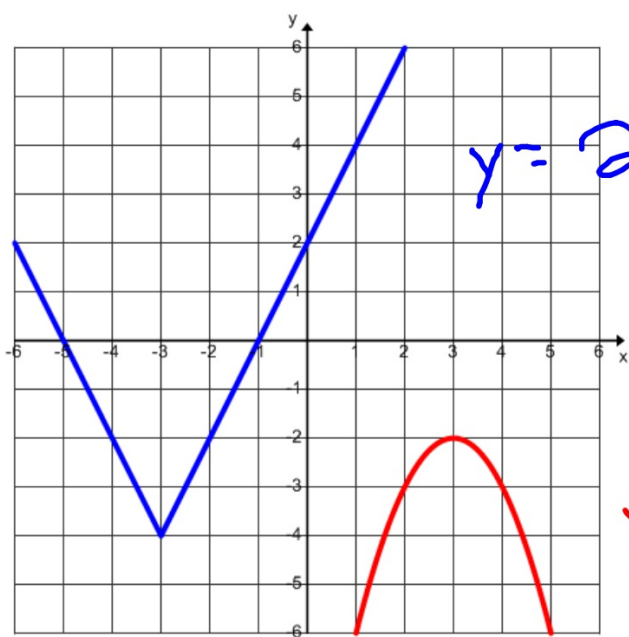
$$y = x^2 - 4$$



$$y = (x - 2)^2 + 1$$

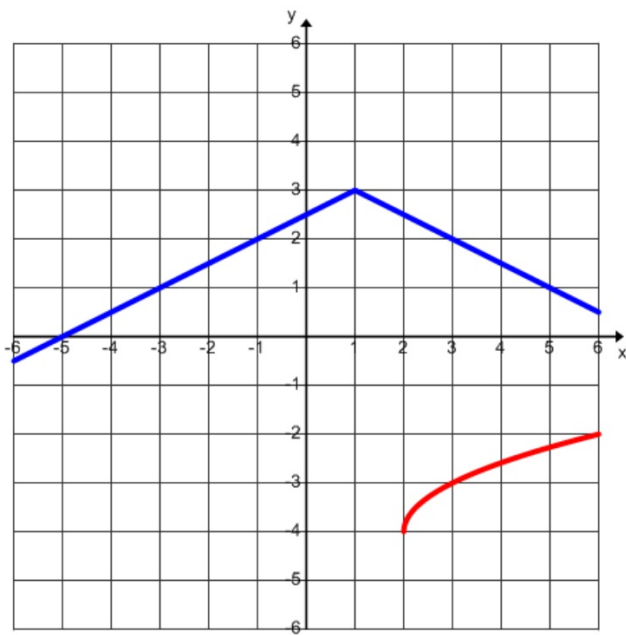


$$y = |x - 2| - 4$$



$$y = 2|x + 3| - 4$$

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



$$y = -\frac{1}{2} / x - 1 / + 3$$

$$y = \sqrt{x-2} - 4$$

