

Bellwork Thursday, March 13, 2014

$(-11, -6)$

1. The function $y = |x|$ is translated 11 units left and 6 units down, it opens down, and the sides have a slope of ± 5 . Write the equation of this function.

$$y = -5|x + 11| - 6$$

2. Write the coordinates of the vertex of this absolute value function.

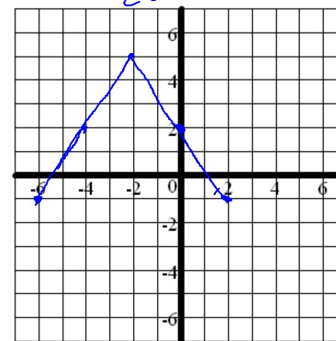
$$y = -0.75|x - 15| + 21$$

$(15, 21)$

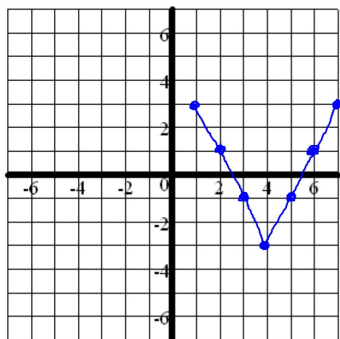
3. Graph each absolute value function using at least 5 points.

a) $y = -\frac{3}{2}|x + 2| + 5$

$$-\frac{3}{2}(4) \quad -6 + 5 = -1$$

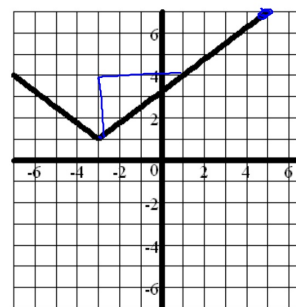


b) $y = 2|x - 4| - 3$



4. Write the equation of each absolute value function.

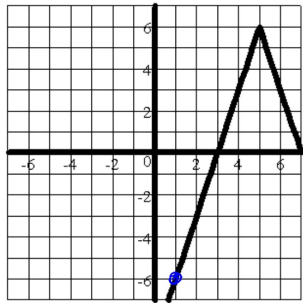
a) EQ



$(-3, 1)$

$$y = \frac{3}{4}|x + 3| + 1$$

b) *EQ*

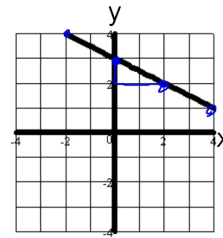


$$y = 3|x - 5| + 6$$

:))

5. Write the equation of each line.

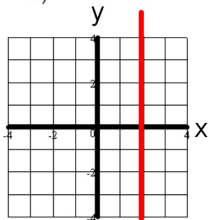
a)



$$y - 2 = -\frac{1}{2}(x - 2)$$

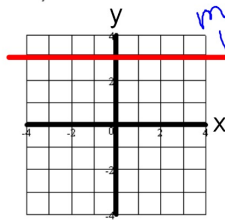
$$y = -\frac{1}{2}x + 3$$

b)



$$x = 2$$

c)



$$m = 0$$

$$b = 3$$

$$y = 0x + 3$$

$$y = 0 + 3$$

$$y = 3$$