Algebra 1 6th hr Bellwork Tuesday, January 5, 2016

Write the equation of each Absolute Value function described.

1. Translated 6 units left, 3 units down, 5 times taller, and opens down.

2. Translated 1unit right, 9 units down, half as tall, and opens up.

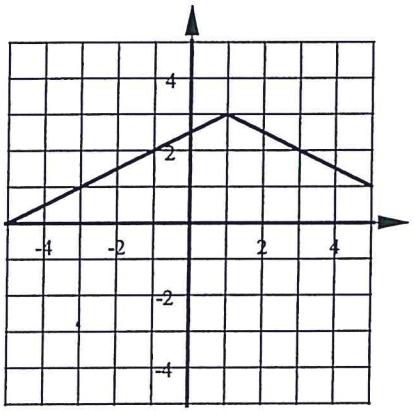
3. Vertex is $(-4, 0)$, opens down, 3 times taller.

4. Describe ALL the transformations of $y = |x|$ that this equation represents:

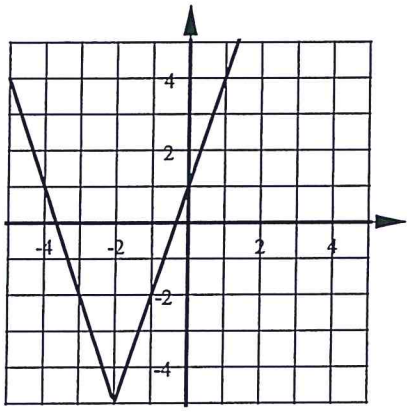
$y = -\frac{1}{4}|x + 7| + 2$

5. Write the equation of each Absolute Value Function shown:

a)

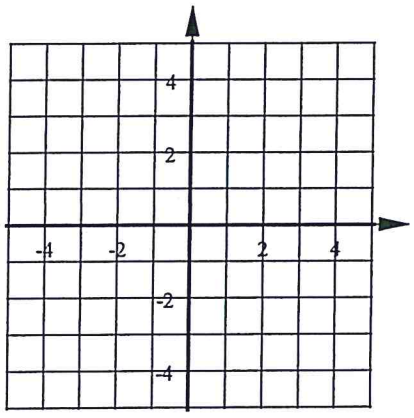


b)

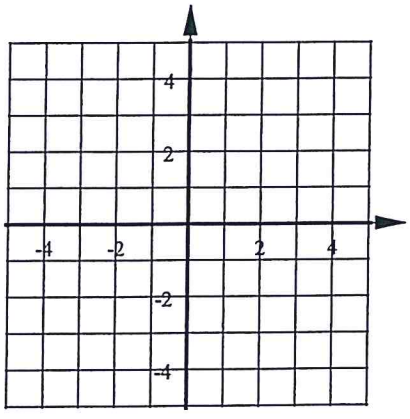


6. Graph each using at least 5 points.

a) $y = \frac{3}{2}|x + 2| - 4$



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



Algebra 1 6th hr Bellwork Tuesday, January 5, 2016 Answers

Write the equation of each Absolute Value function described.

1. Translated 6 units left, 3 units down, 5 times taller, and opens down.

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

2. Translated 1unit right, 9 units down, half as tall, and opens up.

$y = \frac{1}{2}|x-1|-9$

3. Vertex is $(-4, 0)$, opens down, 3 times taller.

4 units left

$y = -3|x+4|$

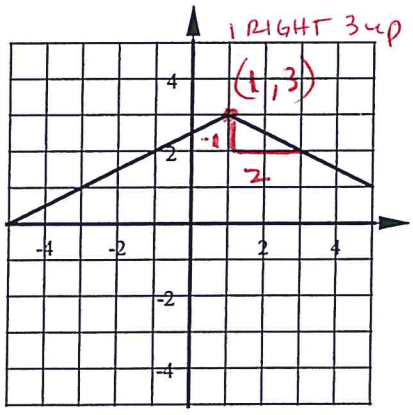
4. Describe ALL the transformations of $y = |x|$ that this equation represents:

$y = -\frac{1}{4}|x+7|+2$

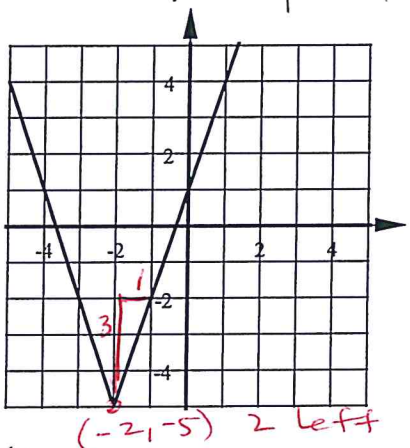
- opens down
- one-fourth as tall
- 7 units left
- 2 units up

5. Write the equation of each Absolute Value Function shown:

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



b) $y = 3|x+2|-5$

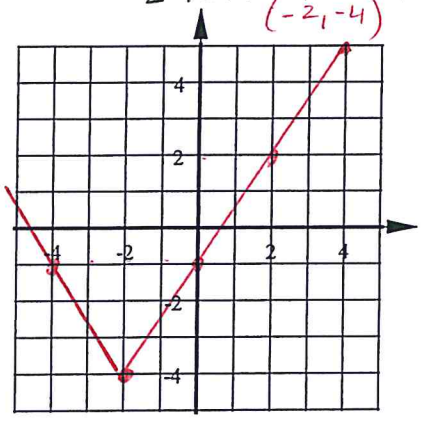


(-2, -5) 2 left 5 down

6. Graph each using at least 5 points.

a) $y = \frac{3}{2}|x+2|-4$

2 left 4 down (-2, -4)



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

3 RIGHT 1 up (3, 1)