Algebra 1 Bellwork Friday, January 15, 2016

6TH

1. Write the equation, in Point-Slope Form, of the line that passes through this pair of points $(9,-11)$ and $(-4,23)$

EQ:

2. Write the equation of the line that passes through this pair of points $(7,3)$ and $(7,-3)$

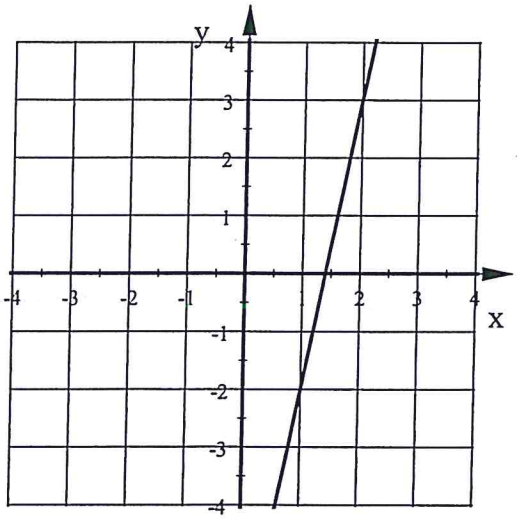
EQ:

3. Identify the Slope and the Point that was used to write this equation:

$y+18=-7(x-23)$ Slope: Point:

4. Write the equation, in Point-Slope Form, of the line shown in the graph below.

EQ:



5. Rewrite this equation into Slope-Intercept Form.

$y+14=-5(x-2)$

Algebra 1 Bellwork Friday, January 15, 2016 ANSWERS 6TH

1. Write the equation, in Point-Slope Form, of the line that passes through this pair of points $(9,-11)$ and $(-4,23)$

$$m = \frac{23-(-11)}{-4-9} = \frac{34}{-13}$$

EQ: using $(9,-11)$ → $y+11 = -\frac{34}{13}(x-9)$

using $(-4,23)$ → $y-23 = -\frac{34}{13}(x+4)$

2. Write the equation of the line that passes through this pair of points $(7,3)$ and $(7,-3)$

$$m = \frac{3-(-3)}{7-7} = \frac{6}{0}$$

m is undefined so line is Vertical

EQ: $x = 7$

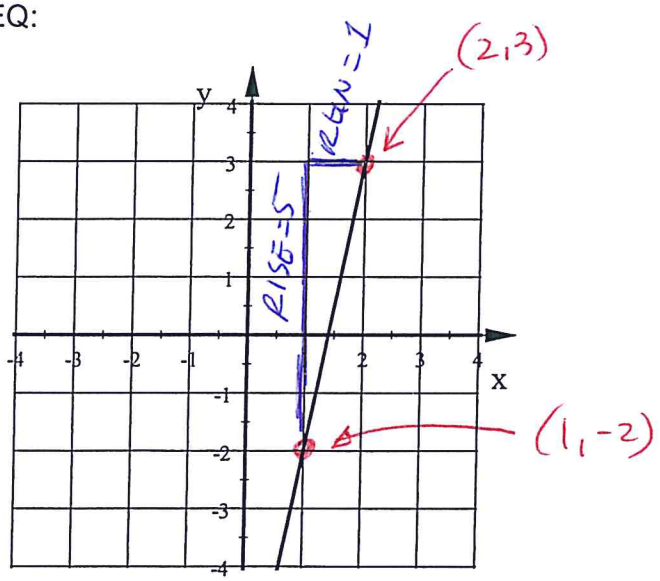
3. Identify the Slope and the Point that was used to write this equation:

$y + 18 = -7(x - 23)$

Slope: $m = -7$ Point: $(23, -18)$

4. Write the equation, in Point-Slope Form, of the line shown in the graph below.

EQ:



$m = \frac{5}{1} = 5$

using $(2,3)$ → $y-3 = 5(x-2)$

using $(1,-2)$ → $y+2 = 5(x-1)$

5. Rewrite this equation into Slope-Intercept Form.

$y + 14 = -5(x - 2)$

1ST DISTRIBUTE -5 → $y+14 = -5x+10$

2nd SUBTRACT 14 from both sides $\quad -14 \qquad -14$

$y = -5x - 4$