Algebra 1 Bellwork Friday, January 8, 2016

1. Write the equation, in Point-Slope Form, of the line that passes through this pair of points $(-6,5)$ and $(-2,-9)$

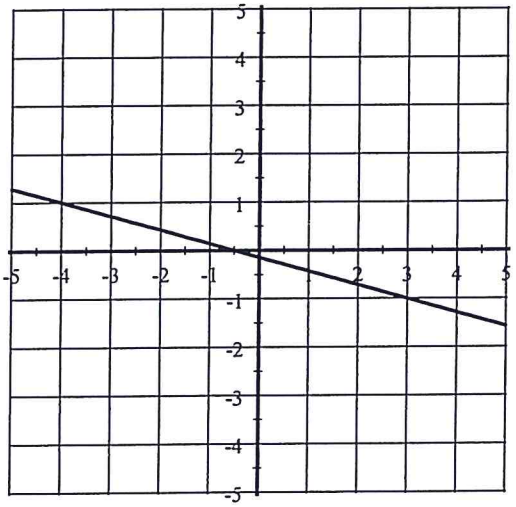
EQ:

2. Write the equation, in Point-Slope Form, of the line that passes through this pair of points $(8,-3)$ and $(5,-3)$

EQ:

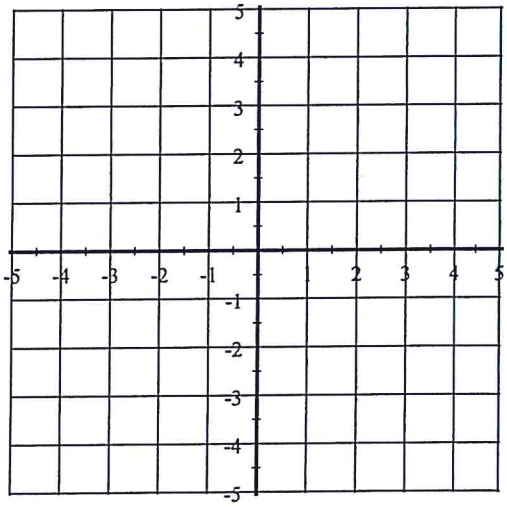
3. Write the equation, in Point-Slope Form, of the line shown in the graph below.

EQ:



4. Graph this equation using at least 3 points.

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



5. Rewrite each eqation into Slope-Intercept Form (don't use any rounded decimals)

a) $y-8=-\frac{2}{3}(x+12)$

b) $y+2=\frac{1}{6}(x-5)$

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ANSWERS

1. Write the equation, in Point-Slope Form, of the line that passes through this pair of points $(-6,5)$ and $(-2,-9)$

$m = \frac{5--9}{-6+2} = \frac{14}{-4} = -7/2$

EQ: $y-5 = -\frac{7}{2}(x+6)$ or $y+9 = -7/2(x+2)$

2. Write the equation, in Point-Slope Form, of the line that passes through this pair of points $(8,-3)$ and $(5,-3)$

EQ: $y+3=0 \longrightarrow y=-3$

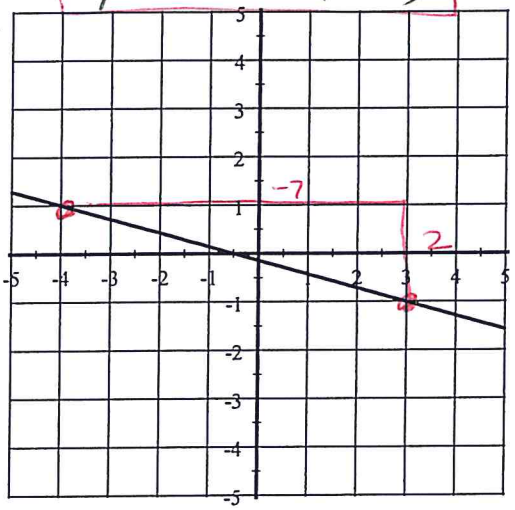
3. Write the equation, in Point-Slope Form, of the line shown in the graph below.

EQ: $y-1 = -2/7(x+4)$ or $y+1 = -2/7(x-3)$

$m = -\frac{2}{7}$

$(-4,1)$

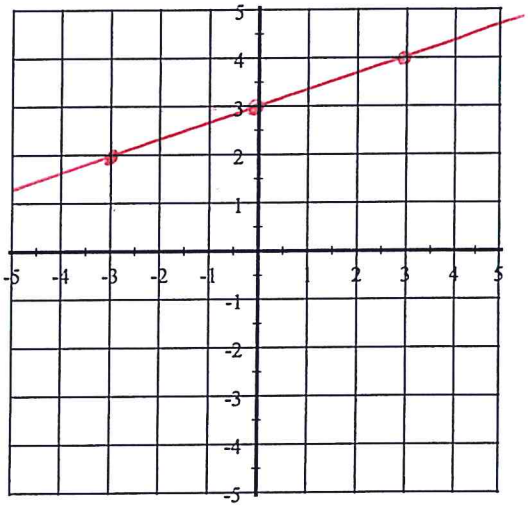
$(3,-1)$



4. Graph this equation using at least 3 points.

$y-2 = \frac{1}{3}(x+3)$ pt $(-3,2)$ $m = 1/3$

or $y = 1/3x + 3$



5. Rewrite each eqation into Slope-Intercept Form (don't use any rounded decimals)

a) $y-8 = -\frac{2}{3}(x+12)$

$y-8 = -\frac{2}{3}x - 8$

$+8 \quad +8$

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

b) $y+2 = \frac{1}{6}(x-5)$

$y+2 = \frac{1}{6}x - \frac{5}{6}$

$-2 \quad -2$

$y = \frac{1}{6}x - \frac{5}{6} - 2$

$-\frac{5}{6} - 2 = -\frac{5}{6} - \frac{12}{6} = -\frac{17}{6}$

$y = \frac{1}{6}x - \frac{17}{6}$