Math 1050, Quiz #4, Spring 2014   Name _____ KEY _____
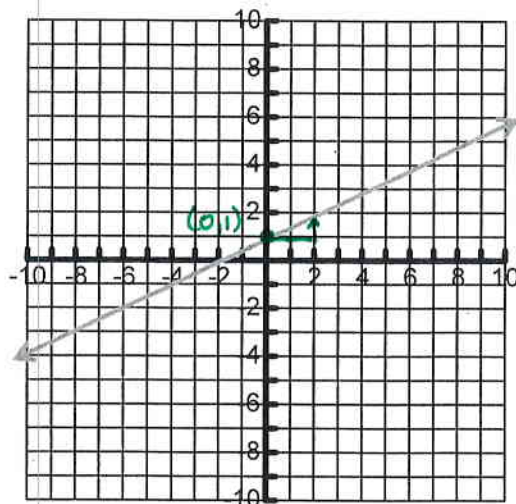
Instructions: Show all work. If you are using your calculator to solve, you may sketch a graph or indicate keys pressed to show work. Exact values: do not use decimals in your answers unless the problem begins with decimals, or is a word problem, or unless specifically asked to round. All answers should be fully reduced for full credit. Draw diagrams to help organize the data (this is worth partial credit). If you do your work on scrap paper, you should indicate that directly on the test paper along with your final answer. It is preferable, if you can, to do work directly on the quiz.

1. Consider the graph shown. Using the intercepts, find the slope and the line, and then write the equation of the line in slope-intercept form.
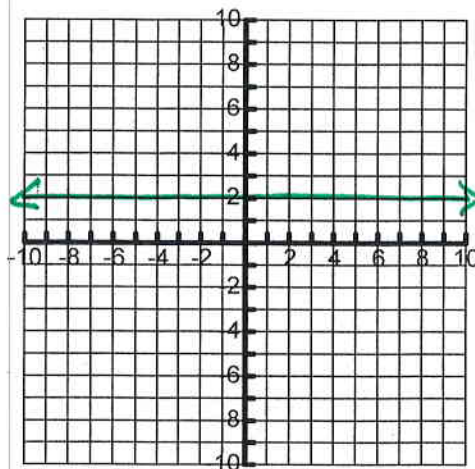
   intercept $(0,1)$

   slope $= \frac{1}{2}$

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

2. On the graph, sketch the graph of a line with a zero slope and give its equation.

   $y = 2$

3. Graph the equation $x - 4y = 24$ on the graph by plotting three pairs of points and connecting the dots. Label the points you used on the graph.

   $x = 0 \qquad y = -6 \qquad y = \frac{24}{-4} = -6$

   $\dfrac{-4y}{-4} = \dfrac{-x + 24}{-4} \;\Rightarrow\; y = \frac{1}{4}x - 6$

   $x = 4 \qquad y = \frac{1}{4}(4) - 6 = -5 \qquad (4, -5)$

   $x = 8 \qquad y = \frac{1}{4}(8) - 6 = -4$

   $(0,-6) \quad (4,-5) \quad (8,-4)$

   $(-4,-7)$

   $(-8,-8)$