MA 1128 - College Algebra — Homework 07b

Monday, February 19, 2018

For Problems 1-5, find the $x$- and $y$-intercepts, and graph.

1. $2x + 3y = 12$.
2. $3x - 4y = 12$.
3. $2x - 5y = -10$.
4. $x + 2y = 4$.
5. $-3x + 2y = 6$.

6. Consider the equation $y = 2x + 3$.
   a. What is the $y$-intercept?
   b. The slope is $m = 2 = \frac{2}{1}$. This can be interpreted as
      \[ \text{slope} = \frac{\text{up 2}}{\text{right 1}}. \]
      Counting the slope from $y$-intercept $(0, 3)$, what point do you get to?
   c. The slope can be written lots of different ways. For example, $m = \frac{-4}{-2}$. How would this be interpreted?
   d. And counting from the $y$-intercept, what point would you get to?
   e. Plot the $y$-intercept and these two points you found, and draw the line.

Answers on next page.
Answers:
1) $x = 6$ and $y = 4$.
2) $x = 4$ and $y = -3$.
8) $x = -5$ and $y = 2$.
4) $x = 4$ and $y = 2$.
5) $x = -2$ and $y = 3$.
6) a) $y = 3$. b) $(1, 5)$. c) Down 4, and Left 2. d) $(-2, -1)$. e)