Name: _____

CW for Tuesday, October 23, 2012

M110 – Canada

1. For the line: $3y - 5x = 12$

a) Put the equation in slope-intercept form.

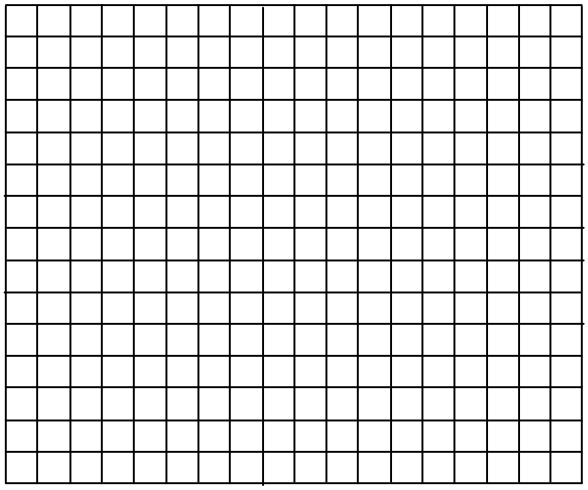
b) Give the slope of the line as m = _____ ? (Hint: Read the slope-intercept form)

c) Give the y-intercept as an ordered pair. _____

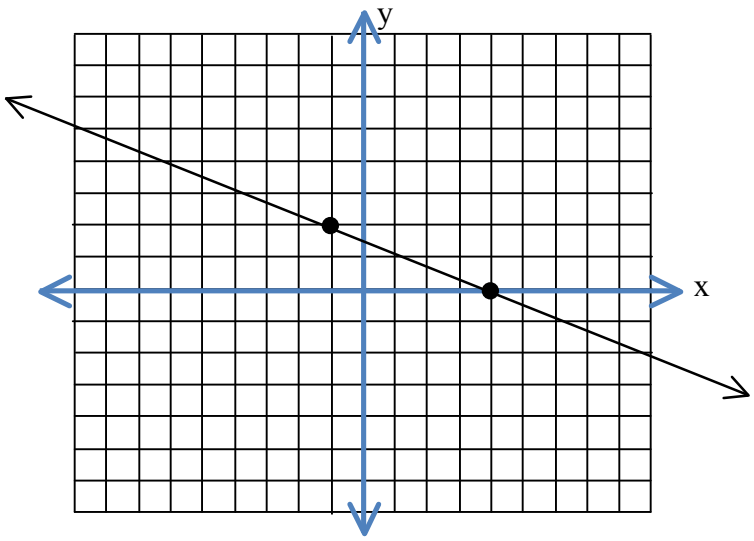
d) Give the x-intercept as an ordered pair. Show your work below. _____

e) Give a solution that is not the y-intercept. Show work (not using a graph).

f) Graph the line using c), e) and the slope to find a 3rd ordered pair. Label the ordered pairs and the line appropriately. Don't forget arrows. Label axes!



2. For the line graphed to find the equation to represent it.



3. Give the equation of the line with the desired characteristics. The final form of every line must be slope-intercept form. If a y-intercept is not given, point-slope form must be used. A graph may not be used to show work.

a) With $m = -\frac{2}{5}$ passing through (5, -15)

b) Passing through (-1, 7) and parallel to $x = 3$

c) Perpendicular to $3x - 5y = 12$ through (0, -5)

4. For the table of values answer the questions that follow.

x	y
-1	-8
0	2
0	-2
3	4

a) Is this a function? How do you know?

b) Is this a linear function? How do you know?

c) If the above is considered a function and $y = f(x)$, find $f(-1)$.

d) If the above is considered a function and $y = f(x)$, find x for which $f(x) = -2$.

5. Solve by clearing. $\frac{2}{3}x - \frac{5}{6} = 2 + \frac{3}{4}x$

6. Answer the questions that relate to the following scenario.
The amount of CO_2 (in ppm) increased from 344.4 ppm in 1984 to 369.4 ppm in 2000.

a) Find a model to describe the amount of CO_2 (in ppm) as a function of years since 1980.

b) Use the model to find amount of CO_2 (in ppm) that will be expected in 2012.

c) What is the y-intercept? Interpret it using units.