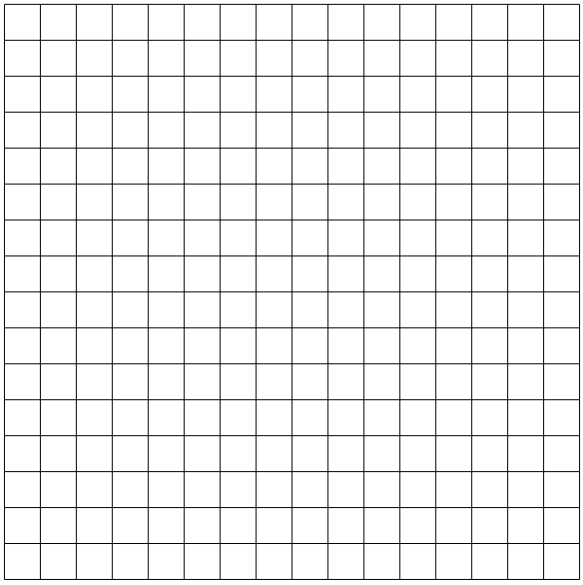
Math 102 Quiz 2 name_____
January 13, 2012

Instructions: Show all your work, and check all your solutions. If your final answer is a number or equation, draw a box around it.

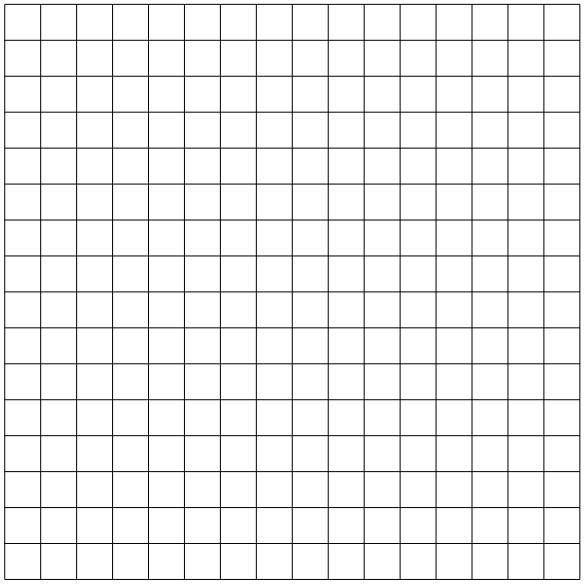
If your solution doesn't check, try to find out why, or write "doesn't check" if you run out of time.

1. (60pts) Solve these systems of equations *using graphs.* Make sure to check your answers.

a. $\begin{cases} x + 2y = -5 \\ 3x + y = -5 \end{cases}$

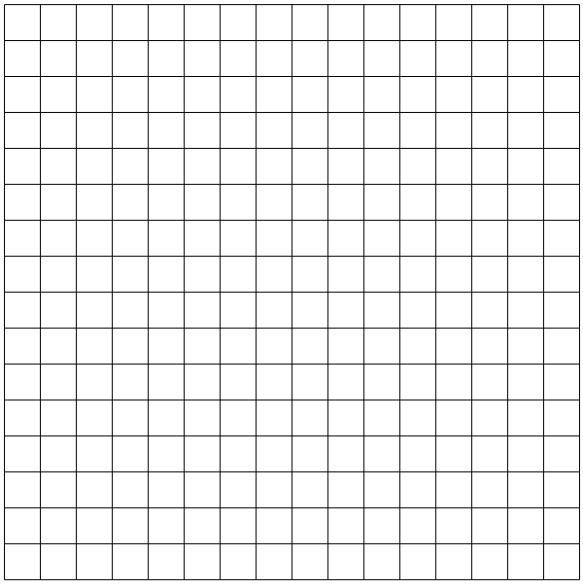


b. $\begin{cases} x - 4y = 1 \\ x = 3 \end{cases}$

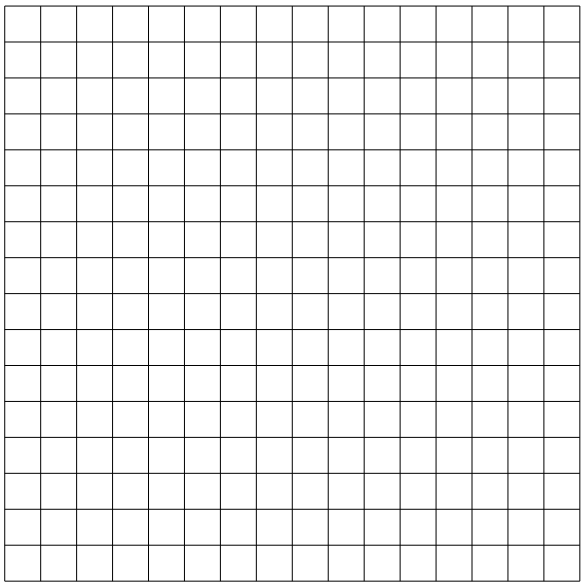


2. (30pts) Graph each equation.

a. $x + y = \frac{1}{3}x - 2$



b. $y = -x + x^2$



3. (10pts) Convert to standard form: $1 - \dfrac{x}{3} = y - 2x$.

Extra credit. (10pts)

Make up a system of linear equations which is true for $(x, y) = (2, 3)$. Then solve it. Do you get $(2, 3)$ as your solution?