Name: Key Period: _____ Date: _____

O1C2: Graphing Systems of Equations Notes

Steps for Solving a Linear System using Graph and Check

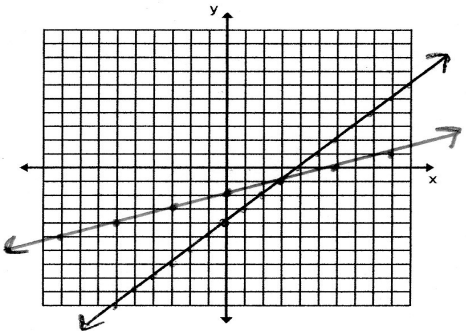
1. Graph both equations in the same coordinate plane.
2. Estimate the coordinates of the point of intersection.
3. Check the coordinates algebraically in each equation

Example 1: Graph and solve the system

$y = x - 4$

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

intersection: (3, -1)



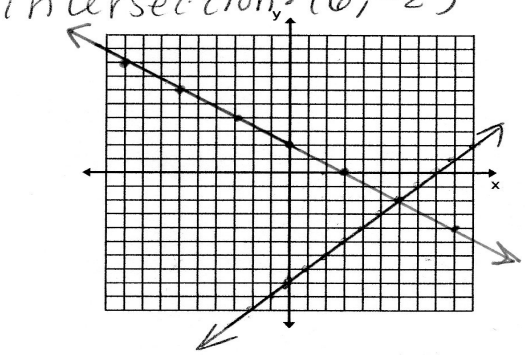
Example 2: Graph and solve the system

$x - y = 8$ $\quad y = x - 8$

$3y + 2x = 6$ $\quad 3y = 6 - 2x$

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

intersection: (6, -2)

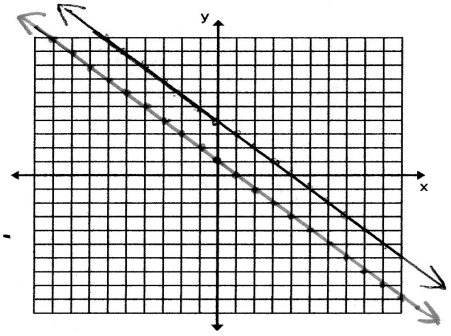


Example 3: Graph and solve the system

$2x + 2y = 8$ $\quad 2y = 8 - 2x$

$y = -x + 1$ $\quad y = 4 - x$

intersection: None



Example 4: Graph and solve the system

$x + y = 2$ $\quad y = 2 - x$

$y = 4x + 7$

intersection: (-1, 3)