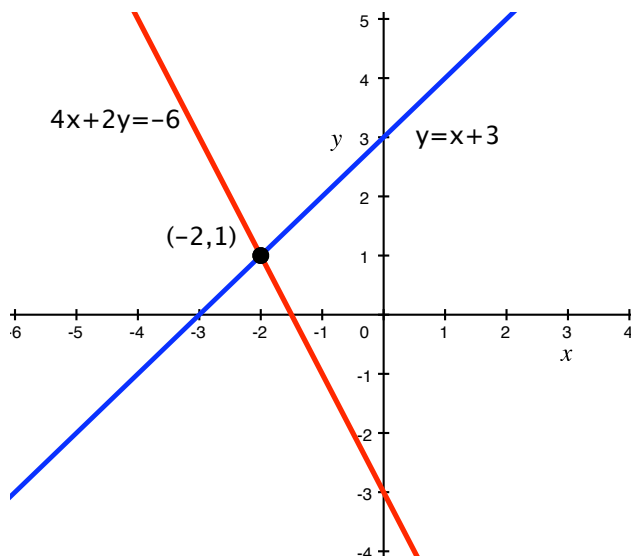


## Math 80 Quiz #5 Answers

1.  $y = x + 3 \rightarrow$  Slope = 1,  $y$ -intercept:  $(0, 3)$

$4x + 2y = -6 \Rightarrow y = -2x - 3 \rightarrow$  Slope = -2,  $y$ -intercept:  $(0, -3)$



From the graph, we can guess that the solution is  $(-2, 1)$ . Checking this solution in the equations verifies this.

Solution:  $(-2, 1)$

2. Using the second equation:  $x = -2y + 4 \Rightarrow 8y = 15 - 4(-2y + 4)$

You should get a false statement when you simplify.  $\Rightarrow$  No solution or  $\emptyset$

3. (2 pts.) Solve  $\begin{cases} 2a + b = -8 \\ -2a + 4b = 28 \end{cases}$  by **elimination**.

"Adding" the equations:  $5b = 20 \Rightarrow b = 4$ . Solving for  $a$ , you will have the solution  $(-6, 4)$ .

4. Using 2 points:  $(1, 40000)$  and  $(3, 20000)$  Slope =  $-10,000$

Equation in point-slope form:  $y - 40000 = -10000(x - 1)$  OR  $y - 20000 = -10000(x - 3)$

Equation in slope-intercept form (simplify the equations above):  $y = -10000x + 50000$