Unit 0 HW #4

1. Use any method to find the point of intersection of $f(x) = 3x - 5$ and $g(x) = -4x + 9$. *Help*

2. Compute for $f(x) = \dfrac{1}{x}$ *Help*

   a. f(12)   b. f(110)   c. f(0.01)   d. f(0.007)

3. Solve each of the following quadratic equations. If you need help, refer to the Math Notes box for this lesson. *Help*

   a. $x^2 - 8x + 15 = 0$ b. $2x^2 - 5x - 6 = 0$

4. Consider the points (−5, 0) and (0, 3). *Help*

   a. Draw x- and y-axes. Then, plot the points on your graph and find the distance between them. Give your answer both in simplest radical form and as a decimal approximation.
   b. Find the slope of the line that passes through both points.

5. Find the error in the solution at right. Identify the error and solve the equation correctly. *Help*

$$4.1x = 9.5x + 23.7$$
$$-4.1x = -4.1x$$
$$5.4x = 23.7$$
$$\frac{5.4x}{5.4} = \frac{23.7}{5.4}$$
$$x = 4.39$$

6. Solve each of the following equations. *Help*

   a. $3.9x - 2.1 = 11.2x + 51.7$

   b. $\dfrac{1}{5}x - 2 = \dfrac{13}{25} - 0.7x$