

HOMWORK SET 3

MAT 092 · FALL 2008

You must show all work to get full credit. You can use a calculator to check your work.

Problem 1. Graph the following ordered pairs $(-1, 5)$, $(0, 3)$, $(2, -1)$, $(3, -3)$.

- (a) Determine the slope of the line that crosses through the points.
- (b) Is the graph increasing, decreasing, or constant?
- (c) Determine the equation of the line in slope-intercept form ($y = mx + b$).

Problem 2. Determine the equation of the line that has slope of -2 and a y -intercept of $(0, -4)$ in slope intercept form.

Problem 3. Let $y = 2x + 4$.

- (a) Find the slope.
- (b) Find the y -intercept.
- (c) Find the x -intercept.
- (d) Graph the line.

Problem 4. Find the equation of the line that crosses through the points $(3, -3)$ and $(-1, 5)$ in slope intercept form.

Problem 5. Graph the linear equation $y = -4x + 11$ and find the x -intercept and y -intercept.

Problem 6. Using the Addition Method, solve the following system of equations.

$$\begin{cases} 2x + 3y = 60 \\ x + 4y = 40 \end{cases}$$

Problem 7. Using the Substitution Method, solve the following system of equations.

$$\begin{cases} -3x + 2y = 7 \\ 2x + 3y = 17 \end{cases}$$

Problem 8. Using the Addition Method, solve the following system of equations.

$$\begin{cases} 5x + 2y = 7 \\ 4x + 3y = 0 \end{cases}$$