Test 1 Preparation

1. The test covers chapter 2, 3.1-3.4, and 4.1-4.4.
2. Use the homework, class work, and class examples as a study guide. In other words, any problem from the homework or class work is fair-game on the exam.
3. Memorize the following:

   a) The Slope Formula: $m = \dfrac{y_2 - y_1}{x_2 - x_1}$

   b) Slope-Intercept Equation of a line: $y = mx + b$

   c) Point-Slope Equation of a line: $y - y_1 = m(x - x_1)$

   d) Any other property or concept you needed to complete the homework successfully.

4. A well-prepared student should be able to…

   a) graph functions by plotting points. [2.1]
   b) graph linear equations using various techniques, such as plotting points, the short-cut method, and plotting intercepts. [chapter 2]
   c) recognize whether or not a given relation is a function. [2.2]
   d) apply the vertical line test. [2.2]
   e) find the domain and range of a function, given its graph. [2.2]
   f) find the domain of a given function. [2.2]
   g) evaluate functions at specified values. [2.2]
   h) find the slope of a line, and interpret slope in terms of rate of change. [2.3]
   i) solve application problems involving linear functions. [2.5]
   j) perform algebraic operations on functions. [2.6]
   k) solve a system of 2 equations, 2 unknowns by graphing, substitution, and elimination). [3.1 and 3.2]
   l) solve applications of systems of equations. [3.1 and 3.3]
   m) solve a system of 3 equations, 3 unknowns. [3.4]
   n) graph one-variable inequalities on a number line and express solutions in set-builder and interval notation. [4.1]
   o) find intersections and union of sets. [4.2]
   p) graph compound inequalities and write solutions in interval notation. [4.2]
   q) solve absolute value equations and inequalities. [4.3]
   r) graph the solution set to inequalities in two variables. [4.4]