Test 1 Preparation

1. The exam covers Pythagorean Theorem (Parts 1&2) chapter 5 and sections 6.1-6.2.
2. Use your homework and examples from class as a study guide. In other words, any problem from the homework, examples, or class work is fair-game on the exam.
3. Memorize the following:

    a) The formulas for converting between radians and degrees
    b) The various definitions involving the 6 trigonometric functions of an angle or a real number
    c) The definition of radian angle measure
    d) The Arc Length Formula
    e) Even/Odd function test
    f) The trig functions of special angles
    g) The Fundamental Trigonometric Identities
    h) The graphs of the six Basic Trig Functions
    i) Sum/difference identities and Co-function identities.
    j) ~~The double angle identities.~~
    k) ~~The half angle identities.~~
    l) The Pythagorean Theorem, Distance Formula, standard equation of a circle, and Midpoint Formula.
    m) Any other definitions or formulas needed to do the homework (e.g. W(t)= (x,y)).

4. A well prepared student should be able to…

    a) find arc length.
    b) convert between radians and degrees.
    c) find the exact trigonometric function of special angles and angles whose reference angles are special.
    d) sketch the graph of all six of the basic trigonometric functions from memory (without the use of a calculator).
    e) graph trig functions using transformations (without the use of a calculator).
    f) compare and contrast a trigonometric function any angle (section 5.3) versus the trigonometric function of a real number (section 5.4).
    g) recognize and apply the concepts discussed in the various sections.
    h) verify identities from sections 6.1-6.2.
    i) Apply the Pythagorean Theorem.
    j) Find the distance and midpoint between two points.
    k) Find the center and radius of a circle and graph it given its equation in standard form.
    l) Find the standard equation of a circle given enough information to find its center and radius.
    m) solve homework-like problems, including applications.

5. Many problems will be multiple choice in nature. BE CAREFUL TO DOUBLE CHECK YOUR ANSWERS!!. No scantron needed.
6. NO CALCULATOR WILL BE ALLOWED ON THIS EXAM.