Topics covered for Exam One Math 1523

1) Determining the measure of an angle
   a) Positive and negative measures
   b) Degree and radian measure [also, converting one to the other]
2) Finding coterminal angles
3) Finding arc length of a circle
4) Finding the area of a sector of a circle
5) Knowing the unit circle values
6) Definitions of the six trigonometric functions
7) Finding a trig. value using a calculator
8) Solving a right triangle
9) Determining the signs of a trig. function in a given quadrant

10) Determining a reference angle

11) Determining remaining trig. functions given one trig. function and a quadrant

12) Knowing period and amplitude of sine and cosine curves

13) Evaluating a y-value given the x-value for a sine or cosine curve

14) Determining the range of a sine or cosine curve

15) Determining the domain and range of inverse trigonometric functions

16) Evaluating inverse trig. functions

17) Evaluating composition of functions involving inverse trig functions

   a) Numerical input, such as $\tan\left(\sin^{-1}\left(\frac{3}{5}\right)\right)$

   b) Variable input, such as $\tan\left(\sin^{-1}\left(\frac{7}{x}\right)\right)$

18) Finding angles of a right triangle given the sides

19) Solving word problems involving right triangles

20) Knowing the simple identities

   a)   Reciprocals   b) Quotient   c) Pythagorean