Math 1060 Midterm 2 Test Objectives

3.1, 3.2, 3.3, 3.4, 3.5, 4.1, 4.2, 4.3, 4.4

Your exam will be "closed book" - no notes or formula cards allowed. Calculators will *NOT* be allowed on a significant portion of the test.

Chapter 3: (No calculators allowed for these problems.)

Work with trigonometric identities :

1) Express tangent, cotangent, secant, and cosecant in terms of sine and/or cosine.
2) Use the Pythagorean Identities.
3) Use the Odd and Even Identities.
4) Combine items 1-3 to simplify trigonometric expressions or prove that an equation is an identity.
5) Use the sum and difference identities and cofunction identities to simplify an expression, find the exact value of a trigonometric expression or prove that an equation is an identity.
6) Use the double-angle identities (and half-angle identities) to simplify an expression, find the exact value of a trigonometric expression or prove that the equation is an identity.

Chapter 4: (Calculators may be allowed for some problems. Please see the suggested review problems below for guidelines on calculator use.)

Understand Inverse Trigonometric Functions:

1) Find exact values of inverse trigonometric functions. You must know the range of the inverse trigonometric functions to find these values.
2) Find exact values of compositions of trig functions and inverse trig functions.
3) Convert compositions to algebraic expressions.

Solve Trigonometric equations:

3) Solve basic trig equations.
4) Solve multiple angle equations.
5) Solve trig equations of quadratic type and equations that require the use of trigonometric identities.

Here are some suggested review problems from chapter 4 that indicate which types of problems should be completed without a calculator.

Do *not* use a calculator:

Chapter 4.1 p. 220; 95-104
Chapter 4 Review Exercises pp. 248 – 250:1– 38, 46, 48, 65-76, 79, 81, 82, 84, 85, 89, 90, 96
Chapter 4 Test p. 250: 1 – 15, 18, 20

Calculator is okay:

P. 220: 38,39,43,46,49,51
Chapter 4 Review Exercises pp. 248 – 250: 80, 103
Chapter 4 Test p. 250: 16, 21