Our third midterm exam will be on Monday, April 18. The material on the exam will cover lecture topics from Monday, March 28, 2011 through and including Friday, April 15, 2011. The following material is offered to help guide you as you are studying for the exam. It is not a practice exam, and the material listed here is in no way meant to be a comprehensive list of topics and questions. Rather, it should be considered as a rough outline of the material that you, the reader, can make detailed as you study.

Rules: The exam will be given from 8:00 - 8:50 AM on Monday, April 18, 2011 only. You should plan on arriving early so that you can begin at 8. I will ask for all papers at 8:50 and I will not take any paper after 8:52. Bring multiple sharp pencils to avoid losing time to sharpen during the exam. Bring a photo ID. I reserve the right to ask anyone to show ID at any time during the exam. The exam is closed book, but you may use one side of one page of 8.5 x 11 notebook paper for notes. You may also use a calculator.

Terms: You should be familiar with the following terminology. I do not expect you to recite careful definitions of these terms. I will, however, use them in the exam questions so that it will be important to know what they mean. Make a study sheet with the following terms, their definitions, and examples.

   Chapter 5: Degree, radian, length of a circular arc, area of a circular sector, sin(t), cos(t), tan(t), sec(t), csc(t), cot(t), graphs of sin, cos, tan, reference angle, amplitude, period, phase shift, average value, solving right triangles

   Chapter 6: Trigonometric identity, verifying an identity, trigonometric equation, addition and subtraction formulas

Skills: You should have the ability to do the following.

   Chapter 5: Convert angle measurements between degrees and radians, use the formula for the length of a circular sector, use the formula for the area of a circular sector, state the values of sin and cos for angles: 0, π/6, π/4, π/3, π/2, draw graphs of sin, cos, tan, find values of sin, cos, tan at all standard angles on the unit circle, find the amplitude, period, phase shift, and average value, sketch the graphs of equations: y = a sin(bt + c) + d or y = a cos(bt + c) + d, solve a right triangle

   Chapter 6: Verify trigonometric identities, solve a trigonometric equation, simplify expressions using the addition and subtraction formulas

Practice problems: (REMEMBER, this is NOT a complete list or practice test). The answers to all of the problems below can be found in the back of your textbook. You may ask me about any of these problems in office hours or in class. Doing a large subset of these problems will give you excellent preparation for the exam.

2. Section 6.1 Exercises (p. 466): 1-20, 51-56
3. Section 6.2 Exercises (p. 479): 1-10, 39-50