Review Sheet for Math 108 Exam III

A) Hour Exam III is scheduled for Tuesday, April 21, 8-9:20am, in Small 113. Come later if you want, but the exam still ends at 9:20. Taking the exam at any other time requires a university activity excuse or a medical note from a doctor or from the health center. See the course syllabus.

B) There will be a review session on Monday (April 20) in class.

C) You may use calculators on the exam for arithmetic, but I will expect you to do the kind of algebra on the first-day algebra review sheet by hand. This is particularly important for finding candidates for max/min of functions $z = f(x, y)$. In addition, you may not use calculators on problems that say ask you to use derivative rules to find $f'(x)$. You will not need to decimalize your answers – an answer like $16\sqrt{2}$ is OK. But if you do decide to decimalize, you must give five correct decimal places.

D) At least 90% of Exam I will be based on the following problems. To study for the exam, work these types of problems over and over.

1) Use the all of our rules for derivatives to find the derivative of a list of functions, including polynomial, root, exponential, and logarithmic functions. See Exam II for examples.

2) Find antiderivatives using rules, including "u-substitution" see page 372, #1,5,7, 17, 19, 23.

3) Evaluate definite integrals using the Fundamental Theorem of Calculus.

4) Use definite integrals to find areas in the plane, see page 354 #13,15,17,21,23.

5) Present and future values of single payments and of income streams – see page 293 #19, 21, 23, plus the hand out on present value and the associated solution handout sheet.

6) Improper integrals using limits and avoiding arithmetic with infinity, see page 379 # 23, 27, 29, 33, 35.

7) Find candidates for max/min of functions $z = f(x, y)$ and test those candidates using DVAL, page 414, #1,3,5,11,17,21.