

## MATH 142 – QUIZ #3 INFORMATION

**Important:** You can (and should) bring a copy of the table of integrals as found on the tearout pages in the back of your book. If you don't have a copy, you get a copy from someone.

- The quiz covers the material from sections 5.5 (Substitution Rule) and 5.8 (Integration Using Tables). Because of 5.8 and the availability of a table of integrals, just about any integral is fair game.
- The exam will have two sections, each with 6 problems.
- The first section will be about substitution or integral transformations. You will be given an integral (indefinite or definite) and a substitution to make. You should make the substitution and simplify the result. You do not need to evaluate the resulting integral.
- Simplifying means making the obvious reductions, like combining constants and bringing them outside the integral and simplifying algebraic and trigonometric expressions. For example

$$\int \frac{3 \sin \theta (2 \cos \theta d\theta)}{\sqrt{4 - 4 \sin^2 \theta}} \text{ simplifies to } 3 \int \sin \theta d\theta$$

- Remember to make sure you substitute for every element in the integral, even the limits.
- The second section is about using the tables or techniques of integration to evaluate some integrals.
- Typically you'll first have to make a substitution to identify which integral in the table you are working with.
- If you use a formula, you'll need to write down the number of the formula you are using and the values you are using for the constants (if there are constants in the formula).