

A quick review for Quiz 1, SH

Quiz 1 will mainly check that you are learning integration [Ch.5] by doing HW1 and HW2. There may also be 1-2 questions related to the Calc One review you did for Quiz 0 (see the previous review page), or to the recent reading / lectures, or maybe some True-False. For True-False practice you may use my Exam pages for MAC 2311 or 2312, or perhaps you can look for more examples online. Practice the formulas for the derivatives and anti-derivatives of trig and inverse trig, exp and ln. For example:

$$\int \tan x \, dx, \int \sin^2 x \, dx, \int \frac{1}{\sqrt{1-x^2}} \, dx, \int \frac{1}{e^x} \, dx, \text{ and } \int \frac{1}{x} \, dx.$$

but don't worry about these, which we have not gotten to yet: $\int \sec x \, dx$, $\int \ln x \, dx$, and $\int \cos^{-1} x \, dx$.

Be prepared for all the topics we have covered in class such as average value, distance traveled, partitions, the definition of the integral and "integrable", the main summation formulas, the 3 main theorems in 5.4, initial-value problems, substitution, and area between curves. The questions on Quiz 1 will not be very long. It is unlikely I would ask you to do 5.2.43 or 47, for example, or a textbook proof. But these could be on Exam I, and you should review the key steps in them, and formulas such as $\Delta x = (b - a)/n$. Ch.6.1 will not be on Quiz 1 because it is too recent.