

MATH 142 – QUIZ #4 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 should get a copy from someone.

- The quiz covers the material from sections 5.10 - 6.4. You should be able to evaluate any given integral.
- It is important that you read each question carefully and follow the directions. It is also important that you show your work.
- There will be two basic types of problems: problem formulation and integral evaluations. Some of the problem formulation problems will require you to just set up an integral, but you will not evaluate it.
- For the problem formulation problems, you'll need to use the steps we discussed in class. In particular, you'll need to show the work to do the calculation for one part and to relate that calculation to the resulting integral. For this you'll need to know about area, volume by shells, volume by washers, arc length and average value.
- The integral evaluation problems will be a mix of improper integrals and integrals you form to answer area, volume, length or average value questions. For the improper integrals it will be critical to clearly express the integral as a limit, evaluate the appropriate definite integral and then evaluate the limit. For these (and any) integrals you can use the table of integrals (indicating which formula you use) or by any other means that we've developed in class (showing your work, of course).