

Main Exercises Week 9

MATH 131: Calculus II, Sections 2 and 3

Your Name (Print): _____

Follow the general guidelines for the Main Exercises assignments (the salmon colored handout). Be sure to **staple** together your pages if you have more than one, and include your **name** at the top. Be **NEAT** and **SHOW YOUR WORK!!!**

Due: at the beginning of class on Friday, October 30th

Remember: Your write-up should be **your own**. You may discuss these problems with others, but **you should be alone when you write them up**, using only outlines of any group or Intern discussions. Be sure to show your work! How you get there is more important than the final answer. Make sure you read the complete question with all the directions and hints before starting a problem. **If you use u -substitution, SHOW IT, no matter how small; do not just do it in your head.**

Do NOT use the internet to do your homework!!! This is your opportunity to LEARN it so that you know it for the next exam...and, more importantly, for life!

1. Evaluate $\int \cos(\ln x) dx$.

2. Find the volume of the solid obtained by rotating the region bound by $y = \sin x$ and $y = 0$ on $[0, \pi]$ about the line $x = -2$. Be sure to show detailed work (including a complete sketch with all the details you know I look for!) and not skip steps.

3. Do Exercise 38 from Section 7.3 in the text (page 530). Be sure to show detailed work and not skip steps.