

Main Exercises Week 7

MATH 131: Calculus II, Section 2

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. Neatness is appreciated, makes a good first impression, and can earn you a bonus point!!!

Due: at the beginning of class on Wednesday, October 10, 2018

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. **EXPLAIN** and **SHOW YOUR WORK!!!** Final answers will not receive full credit without supportive explanations. You may use your own paper on which to write these up.

This is a short Main Exercises assignment due to fall break and thus will be worth half the usual Main Exercises assignment.

1. Find the volume of the solid obtained by revolving the region bounded by the curves $y = \sqrt{x}$, $y = -\frac{1}{2}x + 4$ and $y = 1$ about the line $y = -6$. Be sure to include a complete diagram in your solution – labeled functions and points of intersection, shaded region, estimating rectangle(s), etc.