

# Main Exercises Week 11

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 Monday, November 5, 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. **If you use  $u$ -substitution, SHOW IT, no matter how small; do not just do it in your head.**

1. Evaluate  $\int_2^{2\sqrt{3}} \frac{1}{x^4\sqrt{x^2-3}} dx$ . Be sure to show detailed work and not skip steps. Try to get your answer

into a single fraction; it will have roots in it!

2. Evaluate  $\int \frac{-2x^3 - 20x^2 + 94x + 127}{(x+2)^2(x-3)^2} dx$ . Be sure to show detailed work and not skip steps.