Section 4.5: Optimization Problems

MATH 130: Calculus I

Course Section _____ Name (Print): _____

Due: Friday, April 26, 2019 at the beginning of class

After reading Section 4.5 (pages 280-284 in the text), respond to the following questions **on this handout**. Be sure to staple your pages together before turning it in. **You must answer all parts to all questions to earn full credit!!!** See the salmon homework guidelines handout for details. You are encouraged to take additional notes wherever you are keeping your class notes.

Response Section

1. Summarize in your own words what the important things are to show when solving an optimization problem; in other words, what are the main steps. This does NOT mean copy the table on page 282! Some of the things in the table will likely be in your summary, but others not, and the table may be missing things! Think about what you need to show a complete solution. You may want to refer back to our outline for Related Rates and compare – what is similar? What is different?

2. Back in Section 4.1, we outlined a procedure for finding absolute extrema on a closed interval (it is noted on the top of page 246). However, not every example in Section 4.5 uses that method to solve the problem.

(a) Which ones do not?

(b) Why don't they use that procedure and what mathematical method do they use instead? Note that you do not need to understand the whole example to answer this question!

Questions/Overview Section

3. Write down at least two questions you have on the reading. OR if you have NO questions, do exercise 10 in Section 4.5 (page 285). Be sure to show ALL steps for full credit! See the salmon homework guidelines handout for details.

Reflection Section

4. Write **two or three** sentences reflecting on the progress of your recent work in the course. See the salmon homework guidelines handout for details.

Time Section

5. How much time did you spend on this reading assignment? _____