Extra Credit Assignment (Due Tuesday 7/20 at 11:59PM)

Overview: This is an optional extra credit assignment worth 48 points. Each question is worth 16 points. Your score for each question will depend on my determination of your proficiency in each of the following categories: Conceptual Understanding, Strategies & Reasoning, Computation & Execution, and Communication. You can earn up to 4 points for each category. I will determine your score for each category using the Weekly Assignment Rubric.

Any extra credit points earned on this assignment will be added to your Weekly Assignment score.

Guidelines: You are required to adhere to the weekly assignment guidelines and the assignment submission guidelines in the syllabus. If you fail to follow the guidelines, you risk receiving no credit for you work. Turn in your assignment via gradescope.

Directions: Read Section 9.8 on Arc Length and Curvature in the Active Calculus textbook. I strongly recommend that you complete Activities 9.8.1-9.8.5 (because they will help you learn the ideas), but it is not required. After reading the section, solve any or all of the following exercises. You can click the links below to go directly to the exercises.

- 1. Exercise 9.8.14.
- **2.** Exercise 9.8.15.
- **3.** Exercise 9.8.16.