

Language of Mathematics Assignment 5 Fundamental Theorem of Calculus

Learning Objectives

- Develop an intuitive understanding of the Fundamental Theorem of Calculus
- Able to explain the mathematical concept of Fundamental Theorem of Calculus in a well-organized and well written report.

Grading rubric for report

| Criteria | 5 pts | 2 pts | 1pt or 0pts |
|---------------------|--|---|--|
| Learning Objectives | Clearly shows the learning objectives and topic is thoroughly covered. | Not all learning objectives are achieved and/or topic is not thoroughly covered. | None of the learning objectives are achieved and/or shows a misunderstanding of the topic. |
| Report quality | Well-organized, well written, displays original thought, ideas follow and relate to each other in a logical way. | Not well written and/or contains a few grammatical or spelling errors, but shows original thought and ideas follow and relate to each other in a logical way. | Shows very little information, and contains many grammatical or spelling errors. Little effort made, looks like it was prepared night before or copied from the Internet or another student. Not well written, ideas do not follow in a logical way. |

Report

Answer the following questions in your report. Your report should be more than a few sentences but less than a page. Do not restate definitions in the textbook. Use your own words.

- What is the Fundamental Theorem of Calculus (pg 272)? Use your own words.
- Why is the Fundamental Theorem of Calculus (pg 272) so important?
- Use the Fundamental Theorem of Calculus to solve the problem: An animal population is increasing at a rate of $200 + 50t$ per year (where t is measured in years). By how much does the animal population increase between the fourth and tenth years?

Submission

Your instructor will give you details on submitting your report.