

## Math 241 Derivative Essay Grading Rubric

Checklist:

Formalities:

- \_\_\_\_\_ 1. Assignment page stapled to the front of your paper as your cover sheet.
- \_\_\_\_\_ 2. At least one edit accomplished
- \_\_\_\_\_ 3. Neatly printed or typed
- \_\_\_\_\_ 4. Quotations or illustrations credited to source

Mathematical essay content:

- \_\_\_\_\_ 1 explains and clarifies embedded graphs and mathematical calculations.
- \_\_\_\_\_ 2 Relationships
  - \_\_\_\_\_ a between the graph of a function  $f(x)$ ,
  - \_\_\_\_\_ b the slope of the secant line connecting the point  $(a, f(a))$  to the point  $(a+h, f(a+h))$ ,
  - \_\_\_\_\_ c the slope of  $f(x)$  at  $x=a$ , the tangent line to  $f(x)$  at  $x=a$
  - \_\_\_\_\_ d the limit definition of the derivative  $f'(a)$ .

Rubric:

Topic	A	B	C	D
Clarity	No mistakes in defining key ideas, no confusion in mathematical evidence/explanation	Few mistakes in key ideas, little confusion in mathematical evidence/explanation	Few mistakes in key ideas, some confusion in mathematical evidence/explanation	Key ideas often mistaken, confusion in mathematical evidence/ideas
Coherence	Reasoning flows logically and is easy to follow.	Logical sequence. Relevant information complete.	Generally logical in development. Some errors in sequencing or connections/relationships	Reasoning does not flow logically. Relevant information missing or replaced by irrelevant information
Completeness	Main elements are completely and accurately presented and explained.	Main elements are presented with reasonable accuracy and completeness.	Main elements are present but not complete. The knowledgeable reader is able to fill in the gaps.	Main elements are missing or incomplete.
Mechanics	No spelling or grammatical errors. Correct citations included as needed.	Few spelling or grammatical errors. Correct citations included as needed.	Some spelling and grammatical errors. Incomplete citations.	Multiple spelling and grammatical errors. Needed citations lacking
Fluency	Good language flow, transition, and paragraph cohesion	Generally good language flow.	Inconsistent fluency. Some difficult to read sections.	Difficult to read. Jumpy. Paragraphs not focused.