

## AP Calculus: End of Year Project

**Task:** Your job will be to create an abridged AP Calculus Exam with 10 multiple choice questions and 2 free response questions.

### Requirements:

- Must assess at least 10 different Calculus concepts
- Free response questions must incorporate ideas from more than one unit
- One of the free response questions must include a context
- At most one of the FRQs can require a calculator
- Questions must include content in multiple representations (graphical, numerical (tables), analytical (equations), and verbal)
- Questions must balance procedural skills with conceptual understanding
- Multiple choice wrong answers should reflect common mistakes
- Answer key for MC and free response scoring rubric
- Equal distribution of workload among group members
- Questions are original and not taken or modified from a preexisting question found online
- Typed using proper equation notation or hand-written (neatly)

### Deadlines: Final project due on Wednesday, May 25<sup>th</sup>

- Group established by Friday, May 13<sup>th</sup>
- 3 MC questions due on Monday, May 16<sup>th</sup>
- 3 MC questions due on Wednesday, May 18<sup>th</sup>
- Stems for both free response questions due by Thursday, May 19<sup>th</sup> (the stem is the problem info given before any of the questions are asked)
- First draft of all questions due on Monday, May 23<sup>rd</sup> for review by your teacher

### Collaboration:

You will be working in groups of 2, 3, or 4. You are allowed to choose your own groups with students in your hour. Collaboration can take place during class, via Google Meet/FaceTime outside of class or through Google docs.

Short tutorials will be provided on how to make graphs on Desmos and use the Equation Editor in Google Docs or Microsoft Word.

## Rubric:

	1	2	3
Completion	5 MC questions and 1 FRQ	10 MC and 1 FRQ or 7 MC and 2 FRQ	10 MC questions and 2 FRQs & Answer Key
Requirements	Misses 3 or more requirements	Meets all but 1-2 requirements	Meets all requirements
Representations	Exam includes only 1-2 representations	Exam includes 3 representations	Exam includes all 4 representations
Balance	Exam only includes routine or procedural questions	Exam includes mostly routine or procedural questions	Exam includes procedural and conceptual problems of varying difficulty
Collaboration	One group member does the majority of the work	One group member does significantly less than the rest of the group	Work is distributed fairly equally among group members
Creativity	Questions are not at all original or creative	Questions are somewhat original and creative	Questions are highly original and creative

Total: \_\_\_\_\_/18

This project will be weighted as a test grade.