

(AP Calculus AB) Distance Learning Activity, Day (3/18/20) (Mathematics)

Overview: Unit 6.6 [Enrichment]

The students will be able to understand the various ways to apply the Fundamental Theorem of Calculus (Part 2).

Estimated Time: Approximately [45-60 minutes]

Explanation:

- ⊙ What is the Fundamental Theorem of Calculus (FTOC – Part 2) and how is it applied in the various scenarios (algebraically & graphically)?
- ⊙ How can we use the evidence from applying the Fundamental Theorem of Calculus (FTOC – Part 2) to sketch a graph of the original function?

Materials that are Needed:

OneNote / CBSD email

Things to know:

FTOC is regarded as one of the most important theorems in all of Calculus. This theorem serves as the link between Differentiation and Integration as inverse processes. This theorem will be represented in both the Algebraic & Graphing form integral that you will need to know/apply in the AP Calc AB curriculum. This lesson/activity requests you to review this relationship in both forms and asks you to extend your thinking by taking the example to sketch a graph of the original function at the end.

I am available for questions regarding content through your CBSD email account. Please be specific about your question if referencing a problem so I may provide you meaningful feedback (For example, Unit 7.1 – WS, #3). I will be happy to follow-up with comments and feedback directly in your personal OneNote as needed. Good Luck!

Tasks:

1. Instructional Input Activity / Guided Practice Activity
Student will go to our Class OneNote and refresh the concept by referring to the completed notetaker and solved examples titled Enrichment Activity WS – [FTOC – Pt 2]. A completed version is included with various examples needed for the practice WS.
2. Independent Practice Activity
Complete the Enrichment Activity WS – [FTOC – Pt 2] and make corrections/revisions using the Solutions provided. Feel free to email me with follow-up questions.