

Grade 12

Distance Learning Module 7: Week of May 18th – May 22nd

Introduction to Calculus - Modified from [Unit D - Using Calculus to Sketch Curves](#)

Targeted Goals from Stage 1: Desired Results

Content Knowledge: Intervals of Concavity for a Function

Vocabulary: Critical values, Inflection Points, Concave Up and Concave Down

Skills: Using the 2nd Derivative test and the Number Line test to determine the intervals where a function is concave up and concave down.

Expectation:

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
Monday: Introduction to Concavity	Khan Academy Video - Introduction to Concavity (link posted in Google Classroom)	Khan Academy Practice - Concavity (link posted in Google Classroom)
Tuesday: Introduction to Inflection Points.	Khan Academy Video - Inflection Points (link posted in Google Classroom)	Khan Academy Practice - Inflection Points (link posted in Google Classroom)
Wednesday: Analyzing Concavity Algebraically.	Khan Academy Video - Concavity Analysis (link posted in Google Classroom)	Khan Academy Practice - Concavity Analysis (link posted in Google Classroom)
Thursday: Determining Inflection Points Algebraically.	Khan Academy Video - Determining Inflection Points (link posted in Google Classroom)	Khan Academy Practice - Determining Inflection Points (link posted in Google Classroom)
Friday: The 2nd Derivative Test	Khan Academy Video - The 2nd Derivative Test (link posted in Google Classroom)	Khan Academy Practice - The 2nd Derivative Test (link posted in Google Classroom)

Week criteria for success (attach student checklists or rubrics): Students should be able to use the 2nd Derivative test and the Number Line test to determine the intervals where a function is concave up or concave down. Students should be able to use the two tests along with the extrema to sketch the graph of a function.

Supportive resources and tutorials for the week (plans for re-teaching): Google Classroom notes, Khan Academy, worksheets, office hours