

Grade 10

Distance Learning Module 1: Exponential Functions

Week of: 3/30 - 4/3

Mathematics: Algebra 2 (Level 1) - Modified from [Unit 6 - Exponential and Logarithmic Functions](#)

Targeted Goals from Stage 1: Desired Results

Content Knowledge: The meaning of each of the parameters within an exponential function, the difference between growth and decay.

Vocabulary: exponential growth, decay, natural base, e, continuous, compound interest

Skills: Identifying functions as models of exponential growth and exponential decay, graphing exponential functions using the concept of transformations, using exponential models including compound interest, continuous interest, growth, decay.

Expectation:

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
Monday: Identifying exponential Functions and their graphs.	Video Tutorial (Khan): Intro to Exp. Functions Video Tutorial (Khan): Graphs of Exponential Functions (Student will take notes) Worksheet: Exponential Growth and Decay	Picture of student notes, Snapshot of Students worksheet answers
Tuesday: Graphing Exponential Functions	Graphing Practice Worksheet	Snapshot of Students worksheet answers
Wednesday: Transformations of Exponential Functions	Desmos: Exponentials - Marbleslide	Desmos Teacher View
Thursday: Natural Exponential Functions, Application Problems	Video Tutorial (Virtual Nerd): Natural Base Exponential Function Video Tutorial (Khan) : Exponential word problems Word Problems Practice Worksheet	Snapshot of Students worksheet answers
Friday: More Application problems and Review	Google Slides: Modeling with Exponential	Snapshot of students word problem solutions (Page#388, Problems 74, 76, 78, 80, 81)

Week criteria for success (attach student checklists or rubrics):

By the end of this module, students will be able to

- identify exponential growth and decay
- graph exponential functions
- create exponential functions to represent real life situations

Supportive resources and tutorials for the week (plans for re-teaching):

- Office hours,
- Textbook,
- Khan academy
- Module 1 - [Google Slides](#)
- [Exp Growth Extra Practice Worksheet \(with Answer Key\)](#)