

Grade 9 - 11

Distance Learning Module 10: Week of: June 8<sup>th</sup> - June 12<sup>th</sup>

Laws of Logarithms

## **Algebra 2 (Level 2) - Modified from [Unit 6- Exponential, Logarithmic and Additional Inverse Functions](#)**

### **Targeted Goals from Stage 1: Desired Results**

**Content Knowledge:** The relationship between the laws of exponents and how they relate to the laws of logs

**Vocabulary:** Condensing, expanding

**Skills:** Using the laws of logs, expanding and condensing logarithmic expressions, solving exponential and logarithmic equations

### **Expectation:**

<b>Description of Task (s):</b>	<b>Resources and Materials:</b>	<b>Daily Checks (Return to Google Classroom or snapshots from a cell phone)</b>
Monday: Laws of Logarithm	Video Tutorial (Khan): Properties of Log (Part 1) Video Tutorial (Khan): Properties of Log (Part 2) Slides: 86-88	Worksheet: Properties of Logarithms
Tuesday: Using the Logarithmic Product and Power Rule	Video (Khan): Using the logarithmic product rule Video (Khan): Using the logarithmic power rule Video (Khan): Using the properties (multiple steps)	Khan Practice: Using Properties of Logarithms
Wednesday: Change of Base Formula	Video: Change of Base Formula Article: Logarithm Change of Base Rule Slides: 83-85	Khan Practic: Evaluate Logarithms: Change of Base rule
Thursday: Expanding and Condensing Logarithmic Expressions	Live Session Slides: 89-90	Worksheet: Condensing and Expanding Logarithms

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
Friday: Review of Properties of Logarithm	Live Review Session Logarithm Properties Review	Module 10 - Assessment

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

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

- ☐ expand and condense logarithmic expressions
- ☐ use the law of logarithms to simplify logarithmic expression
- ☐ solve exponential and logarithmic equations
- ☐ emphasize that logarithms are used to solve for variable exponents

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

- Office hours,
- Khan academy,
- Module 10 - Slides