

Grades 11 and 12

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

## PCAT - Modified from [Unit 6 - Radicals, Exponents, and Logarithms](#)

### Targeted Goals from Stage 1: Desired Results

**Content Knowledge:** Radicals can be expressed as exponents, When to use logarithms, Logarithmic function is the inverse of an exponential function

**Vocabulary:** Logarithm, Radical, Rational Exponent, argument, base

**Skills:** simplifying expressions with radicals and exponents, converting between exponential and logarithmic equations, applying the properties of logs to expand or condense expressions, solving equations involving radicals and rational exponents (with and without logarithms)

### Expectation:

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
Monday: Integer and Rational Exponent Rules	Khan Academy Video: Multiplying & Dividing Powers (Integer Exponents)  Khan Academy Video: Power of Products and Quotients (Integer Exponents)  Rational Exponent Rules Video	Khan Academy Assignment: Multiplying & Dividing Powers (Integer Exponents)  Khan Academy Assignment: Power of Products and Quotients (Integer Exponents)  Rational Exponent Rules WS (Select Q's) (Students will upload a photo of their work) PDF Worksheet
Tuesday: Simplifying Radicals	Khan Video - Simplifying Square Roots  Khan Video - Simplifying Square Roots (variable)	Khan Practice - Simplifying Square Roots  Khan Practice - Simplifying Square Roots (variables)

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
	Khan Video - Simplifying Square Root Expressions	Khan Practice - Simplifying Square Root Expressions
Wednesday: Solving Radical Exponent Equations	Khan Video: Square Root Equations Intro  Khan Video: Square Root Equations One Solution  Khan Video: Square Root Equations Two Solutions  Khan Video: Square Root Equations No Solution	Khan Assignment: Square-Root Equations Intro  Khan Assignment: Square-Root Equations
Thursday: Solving Higher Degree Radical and Rational Exponent Equations	Solving Radical and Rational Exponent Video	Solving Radical Equations WS (Students will upload a photo of their work) PDF Worksheet
Friday: Wrap-Up	Optional Live Google Meet Review	End of Module 10 Google Form Check-In

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

- Students will be able to simplify expressions by using integer exponent rules
- Students will be able to simplify radicals
- Students will be able to simplify expressions by using rational exponent rules
- Students will be able to solve radical and rational exponent equations

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

Rational Exponent Rules Extra Video: <https://www.youtube.com/watch?v=gpqB3Na9aul>

Solving Radical Equations Extra Video: <https://www.youtube.com/watch?v=0gicD4STzpg>