

Unit 5: Trigonometry (basics)
 Flipped Classroom Lesson Plan

Class website link: <https://www.lopezandtheseecretsoftheuniverse.com/unit-assessments>

Grade Level: 11/12th grade	Subject: Pre-Calculus	Daily lesson Length 45-60min
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Note: This lesson plan was designed for the week I will be attending a conference in San Francisco. I am using this as an opportunity to implement a flipped classroom model. I believe that my absence from the physical classroom encourages students to actively use the resources provided and rely more intentionally on one another for support and collaboration.

Big Idea: Radical expressions can be simplified by identifying perfect square factors and applying the product rule: $\sqrt{ab} = \sqrt{a} \cdot \sqrt{b}$

Essential Questions: How does recognizing function structure help us simplify radical expressions?

DO NOWS: DO NOWS: CAASPP 3/4-3/6

Wednesday March 4th Course Selection day	Thursday (Flipped Day 1) March 5th	Friday (Flipped Day 2) March 6th
<p>Objective: select courses for 26-27 year</p> <p align="center">Teacher materials</p> <p> Teachers PPT Course Selection 202...</p> <p align="center">Student Materials</p> <p>Video link:</p> <p> KJ course selction 2025-26.mp4</p> <ul style="list-style-type: none"> • Electives 26/27 • CourseCatalog_2026.2027... <p>Student Handouts:</p> <ul style="list-style-type: none"> 26/27 10th Advising Guide 2.18.26 26/27 11th Advising Guide 2.18.26 26/27 12th Advising Guide 2.18.26 	<p>Objective: I can simplify radical expressions without a calculator.</p> <p align="center">Materials</p> <p>Handout (notes):</p> <p> student notes (radicals).pdf</p> <p>Handout(classwork):</p> <p> part 1: Simplify radicals</p> <p>Lopez Video link: Part 1: simplifying radicals without a calculator</p> <p>https://youtu.be/iaFilVWtrts</p> <p>Learning tools</p>	<p>Objective: I can simplify radical expressions with variables.</p> <p align="center">Materials</p> <p>Handout (notes):</p> <p> student notes (radicals).pdf</p> <p>Handout (classwork):</p> <p> part 2: Simplify Radicals with variables</p> <p>Lopez Video link: Part 2 : simplifying radicals with a variables</p> <p>https://youtu.be/DO1bYNqJnxU</p> <p>Learning tools</p>

	 PHS Factor Chart (mod).pdf	 PHS Factor Chart (mod).pdf
Assignment descriptions	Assignment Description	Assignment Description
<p>Students will watch the video first, and review the course catalog before entering their AERIES account to select their courses</p> <p>Step by Step</p> <ol style="list-style-type: none"> 1. Log-in to Aeries Student Portal 2. Select the correct student, be sure school is P****HIGH SCHOOL (not Evening School) 3. Select the CLASSES tab on the left-hand side 4. Select the COURSE REQUEST ENTRY tab 	<p>Students will watch a video(youtube link) on part 1: simplifying radicals. While they watch the video they should take notes. The notes will be an assignment they will need to upload into google classroom. There is also a worksheet with practice problems “Part 1”that is due in google classroom.</p> <p>Each lesson is accompanied by a small online quiz.</p> <p>Accountability assessment</p> <p>Quizzie Link https://wayground.com/admin/quiz/69a2735b08413a3e64da7b7e</p>	<p>Students will watch a video(youtube link) on part 2: simplifying radicals with variables. While they watch the video they should take notes. The notes will be an assignment they will need to upload into google classroom. There is also a worksheet with practice problems “Part 2” that is due in google classroom.</p> <p>Each lesson is accompanied by a small online quiz.</p> <p>Accountability assessment</p> <p>Quizzie Link https://wayground.com/admin/quiz/69a273e2d8d06c9a5619eefe</p>

Common Core State Standards (CCSSM)

HSN-RN.A.2

Rewrite expressions involving radicals and rational exponents using the properties of exponents.

A-SSE.A.2 (supporting standard)

Use the structure of an expression to identify ways to rewrite it.

Technology (ISTE) Standards**ISTE 1.5 Computational Thinker**

Students break down radical expressions into factors, identify perfect squares, and apply the product rule strategically.

ISTE 1.6 Creative Communicator

Students explain their simplification process using digital tools (video explanation, Padlet post, Jamboard, etc.).