

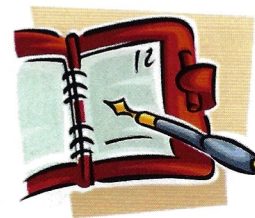
Lesson Plan

Class: PRE CAL

Grade Level: 10-12

Unit: Simplifying Rational Expressions

Teacher: Jeanette Thompson



Common Core State Standards (CCSS)

- [CCSS.Math.Content.HSA-APR.D.6](#) Rewrite simple rational expressions in different forms; write $a(x)/b(x)$ in the form $q(x) + r(x)/b(x)$, where $a(x)$, $b(x)$, $q(x)$, and $r(x)$ are polynomials with the degree of $r(x)$ less than the degree of $b(x)$, using inspection, long division, or, for the more complicated examples, a computer algebra system.
- [CCSS.Math.Content.HSA-APR.D.7](#) (+) Understand that rational expressions form a system analogous to the rational numbers, closed under addition, subtraction, multiplication, and division by a nonzero rational expression; add, subtract, multiply, and divide rational expressions.

21st Century Skill(s)

- Articulate thoughts and ideas effectively using oral, written and nonverbal communication skills in a variety of forms and contexts
- Listen effectively to decipher meaning, including knowledge, values, attitudes and intentions
- Use communication for a range of purposes (e.g. to inform, instruct, motivate and persuade)

Essential Question

How do you simplify rational expressions?

Objectives

- 1) Students will be able to identify common factors in rational expressions.
- 2) Students will be able to simplify rational expressions.

- Move to simplifying with multiple degrees of x.
 - Ex: $(x^2 - x - 2)/(x^2 - 4)$
 - We factor to find this is $(x-2)(x+1)/(x-2)(x+2)$
 - $x-2$ is our common factor
 - Final answer would be $(x+1)/(x+2)$
- White Board races (Pairs)
 - Students pair up to solve rational expressions on white boards
 - Team that gets answer first gets 2 points, teams who get correct answer but not first get 1 point, and if they get wrong answer they lose 1 point.
 - This corresponds with objective 2.

Time: 60 minutes

Closure

- Students will create a fake conversation in text to describe to a student who was sick how to simplify rational expressions.
 - Essential question correspondence.
 - This is like an exit slip
 - NOTE: School would be one-to-one.

Time: 5 minutes

Assessment

My assessments are in teaching activities, highlighted in yellow.

“I Can” Statement

I can simplify rational expressions.