

Operations with Rational Expressions

Today's Standard

HSA.APR.D7 - (+) 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.

Real-World Applications for this Standard

Simplifying complex fractions in engineering problems; Modeling population growth in biology; Solving electrical circuit problems; Calculating probabilities in statistics

Today I Learned

Today, I learned about rational expressions. These are like fractions, but they have polynomials in the numerator and/or denominator. We can add, subtract, multiply, and divide them just like regular fractions.

Common Stumbling Blocks

Some students think that rational expressions can't be simplified like regular fractions, but they can. Others think you can't divide by rational expressions, but you can as long as the bottom isn't zero.

Quiz Me

- What is a rational expression?
- How do you simplify a rational expression?
- Can you add two rational expressions?
- What must you check before dividing by a rational expression?
- Why is it important to simplify rational expressions?

Help Me

Rational expressions are like fractions with polynomials. We use them in real life, like in engineering and biology, to solve problems. By learning to simplify and operate with them, we can solve more complex math problems and understand the world better.