Applied Statistics

Domain	**Functions and Modeling**	
Cluster	**Explore expressions, functions, and models to describe numbers or relationships.**	
Standard(s)	M.ASHS.18	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. Instructional Note: This standard requires the general division algorithm for polynomials.

Content Examples

- *Multiplying and dividing rational expressions: monomials*
- *Multiplying rational expressions*
- *Dividing rational expressions*
- *Adding and subtracting rational expressions: like denominators*
- *Adding rational expressions: unlike denominators*
- *Subtracting rational expressions: unlike denominators*

Relevant Content

- General division algorithm: $f(x) = d(x) \times q(x) + r(x)$, where $f(x)$ is a polynomial, $d(x)$ is the divisor, $q(x)$ is the quotient, and $r(x)$ is the remainder

Vocabulary

- Rational expression: A quotient of two polynomials with a non-zero denominator

Rewrite Simple Rational Expressions
Equivalent Rational Expressions
Multiplying and Dividing Rational Expressions
Adding and Subtracting Rational Expressions

Assessment Links or Tasks

- Open Middle dividing rational expressions: *https://www.openmiddle.com/dividing-rational-expressions/*
- Combined fuel efficiency (rewrite rational expressions): *https://tasks.illustrativemathematics.org/content-standards/HSA/APR/D/6/tasks/825*