UNIT PLANNING TOOL

What real-world situation can be represented by rational numbers?

Essential Question(s):
How will understanding the principles of algebra help me in real-world situations?

Pre and Post Assessments
Meta-cognition Boxes
- integers
- expressions
- equations
- rational numbers

SE Learning Task
Georgia Department of Education
www.georgiastandards.org

Key Concepts

P + q = p + (-q)

Visual Models of Concepts

Real Numbers

Rational Numbers

Integers

Whole Numbers

Natural Numbers

Connections (Real World Applications)

Algebra - graphing equations

Finance - money markets, stocks

Business - calculate losses, profits, cost

Science - global warming, environmental changes

Engineering

Algorithms/Diagrams

p + q = p + (-q)
p × q = r
p(x + q) = r
p(x + q) = r

Money

Elevation

Temperature

Higher levels of math

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Add 1

Divide by 3

Input the number

Algebra

Output the #

\( \frac{1 + 1}{3} = \frac{2}{3} \)
Language Functions/Structures

Expressions are different than equations because

are examples of rational numbers because

The difference between equalities and inequalities is

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Focus and Motivation

**Guess my number**

* My number times 23 will equal 100. What is my number?*

* Is divided by my number will equal 5. What is my number?*

Literature

"Less Than Zero" by S. Murphy

"One Grain of Rice" by Demi

Animation

BrainPop - Inequalities

Equations w/ variables

+/- integers

Students - Integers

Creating Equations w/ Word Problems

Order of Operations

Number Patterns

Determine the Missing Operation in an Equation

+/- Equations

Metacognitive Boxes

Integers, absolute value, algebraic expressions

algebraic equations