Unit 1 - Real Numbers and Their Properties

Content Area: **Mathematics**
Course(s): **Algebra 7**
Time Period: **September**
Length: **4 weeks**
Status: **Published**

Transfer

Big Idea: Real Number & Their Properties.

Enduring Understandings

Samples

All of the facts of arithmetic and algebra follow from certain properties.

Variables in place of numbers allow the statement of relationship among numbers that are unknown or unspecified.

Essential Questions

Samples

How do I determine the best numerical representation (pictorial, symbolic objects) for a given situation?

Can expressions that appear to be different be equivalent?

Critical Knowledge and Skills

Vocabulary

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Absolute Value, Additive Inverse, Algebraic Expression, Base, Coefficient, Constant, Distributive Property, Element of the Set, Equation, Equivalent Expressions, Evaluate, Exponent, Integer, Irrational Number, Like

Terms, Multiplicative Inverse, Natural Number, Numerical Expression, Opposite, Order of Operations, Perfect Square, Power, Quantity, Radical, Radicand, Rational Number, Real, Reciprocal, Set, Square Root, Subset, Term, Variable, Whole Number

Learning Objectives

Bloom's Taxonomy

Write algebraic expressions (A.SSE.1.a)

Simplify expressions involving exponents (A.SSE.1.a)

Use the order of operations to evaluate expressions (A.SSE.1.a)

Classify, graph, and compare real numbers (N.RN.3)

Find and estimate square roots (N.RN.3)

Identify and use properties of real numbers (N.RN.3)

Find sums, differences, products, and quotients of real numbers (N.RN.3)

Use the Distributive Property to simplify expressions (A.SSE.1.a)

Resources

Polygraph: Rational Irrational Numbers

Illuminations Distributing & Factoring Using Area

TED Ed: Infinite Hotel

Desmos: Pentomino Puzzles

Magic Squares

Desmos: Expressions Mash-Up

Khan Academy: Irrational Numbers