Comparing and Ordering Rational Numbers

Lesson Overview

In this review lesson, students will use their math textbook and knowledge from the previous lessons to complete a graphic organizer for comparing and ordering rational numbers.

Standards Addressed

CCSS 6.NS.7 Understand ordering and absolute value of rational numbers.

Disciplinary Literacy Best Practices

Think-Ink-Pair-Share Graphic Organizer Give me "5" Partner Dialogue Exit Slips

Lesson Plan

Time Required: One 60-minute class period

Disciplinary Vocabulary: absolute value, negative integer, positive integer, rational number, repeating decimal

Materials Needed:

- Student Math Textbook or Online Resource for Information
- Tape
- Scissors
- Copy of Graphic Organizer
- Student Notebooks
- Exit Slip

Assessment: Exit Slips

Engage

- As students enter class, they should write their thoughts on the focus questions in their notebooks.
 - How can symbols and absolute value help you to order sets of integers? Sample answer: Positive numbers have a greater value than negative numbers. You can use absolute value to determine the distance of a number from 0.
 - How can a number line help in ordering rational numbers? Sample answer: On a horizontal number line, numbers are shown from least to greatest from left to right.

Explore

- Students will assemble the graphic organizer foldable and tape it into their student notebook. Part One should be taped on top of Part Two to create windows that can be lifted for reading the information underneath.
- Student pairs will use information from their text and other sources to complete the graphic organizer and discuss what they have written. Students will record information about each section on the blank sections of the graphic organizer.

Explain

- The teacher will use "Give me five" to elicit student responses for each part of the graphic organizer. Students will share aloud what they discovered about comparing and ordering rational numbers. How rational numbers are related and differ?
- The teacher will provide several examples for students to consider how to compare and order rational numbers. Students will explain what steps they would take in ordering and comparing rational number which may include decimals, fractions, and positive and negative numbers.
- Students will complete several independent practice examples to check for understanding of rational numbers.
- o Students will complete an Exit Slip/Exit Ticket as they reflect on the day's learning.

Lesson Assessment: Students will complete an <u>exit slip</u> where they will answer the questions from the beginning of the lesson. "*How can symbols and absolute value help you order sets of integers? How can a number line help in ordering rational numbers?*"

Teacher Reflections and Biographical Information

Many of my students are visual and kinesthetic learners. By having the students work with their partner to complete various activities together to see how each other handles different problems and to communicate effectively. It's important for them to make mistakes along the way and learn from them. Having students come up to the board to help each other and correct each other's mistakes is a great learning tool for these students.

Lesson Author: Freddy Teal, 6th grade math teacher at East Clarendon Middle/High School in Clarendon District 3 in Turbeville, SC, has been teaching math at grade levels 6th-8th for 14 years. He currently teaches 6th grade math.

Comparing and Ordering Rational Numbers Graphic Organizer Part One

Directions: Cut on the dotted lines and tape over Part Two.

Comparing and Ordering Integers

Comparing and Ordering Rational Numbers

Comparing and Ordering Fractions and Decimals

Comparing and Ordering Rational Numbers Graphic Organizer Part Two

Directions: Cut on the dotted lines and tape into notebook.

