

Core Content

Cluster Title: Apply and extend previous understandings of numbers to the system of rational numbers.

Standard 7: Understand ordering and absolute value of rational numbers.

b. Write, interpret, and explain statements of order for rational numbers in real-world contexts. For example, write $-3^{\circ}\text{C} > -7^{\circ}\text{C}$ to express the fact that -3°C is warmer than -7°C .

MASTERY Patterns of Reasoning:

Conceptual:

Understand ordering of rational numbers, numbers are progressively smaller the further to the left you go on the number line.

Understand that a statement of inequality represents the relative position of the numbers on a number line.

Understand that rational numbers found in real-world contexts can be ordered and interpreted.

Procedural:

Compare and order rational numbers in real-world contexts.

Write statements of order that reflect a real-world context.

Representational:

Model and explain statements of order for rational numbers.

Supports for Teachers

Critical Background Knowledge

Conceptual:

Understand that rational numbers can be compared and ordered.

Procedural:

Compare and order rational numbers.

Representational:

Express comparisons of rational numbers with proper notation.

Academic Vocabulary and Notation	
<, >, rational numbers, inequalities	
Instructional Strategies Used	Resources Used
Have a student write a real-life situation using 2 rational numbers and have another student write an inequality to represent the situation. Then switch tasks.	
Assessment Tasks Used	
<p>Skill-based Task: It is -20°F in Juno, Alaska and -5°F in Salt Lake City, Utah. Which city has the lowest temperature?</p>	<p>Problem Task: A scuba diver is 30 ft. below sea level and a submarine is 75 ft. below sea level. Jim thinks the inequality for this situation should be -30 ft. below sea level $>$ -75 ft. below sea level. Sally thinks the inequality should be -30 ft. below sea level $<$ -75 ft. below sea level. Who is correct? Why?</p>