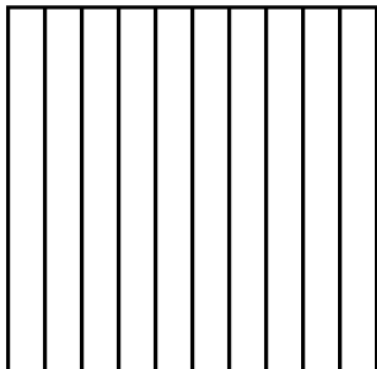




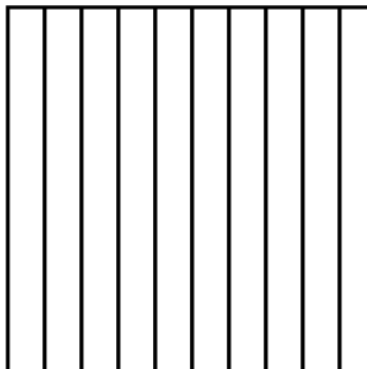
4.NS.6 Compare two decimals to hundredths by reasoning about their size based on the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions (e.g., by using a visual model). (E)	
Reporting Category: Number Sense	Subdomain: Understanding Fractions and Decimals
4.NS.6 Instructional Framework	
Assessed On:	
<input type="checkbox"/> Checkpoint 1 <input type="checkbox"/> Checkpoint 2 <input checked="" type="checkbox"/> Checkpoint 3 <input checked="" type="checkbox"/> Summative	
Content Limits: <ul style="list-style-type: none">Limit decimals to the tenths and hundredths place.Models may include number lines or decimal squares.	
Clarifications: <ul style="list-style-type: none">The keypad in the ILEARN testing system does not allow students to enter a comma between each period in a multi-digit number. (Example: 13,323 would be entered as 13323.)	
Calculator Availability: Not Allowed	
Expected Academic Vocabulary: decimal, tenths, hundredths, compare, whole, greater than, less than, equal to, equivalent, model	
Examples of Context and Varying Difficulty Levels	
Context: Easy	Both decimals are limited to the tenths place and are less than 1.
Context: Medium	At least one decimal is to the hundredths place with both less than 1 OR both decimals to the tenths place, with at least one greater than 1
Context: Difficult	At least one decimal number to the hundredths place, with at least one greater than 1.
Proficiency Level Descriptors and Example Items	
Looking Back: This concept is not specifically addressed in the Indiana Academic Standards prior to this grade level.	Looking Ahead: 5.NS.1 ILEARN Item Specifications
Below Proficiency: Compare two decimals to the tenths using models.	
Each model represents 1 whole. ⁺ Click to shade sections in the models to represent 0.2 and 0.3.	This is a DOK 2 item because students must use visual models to



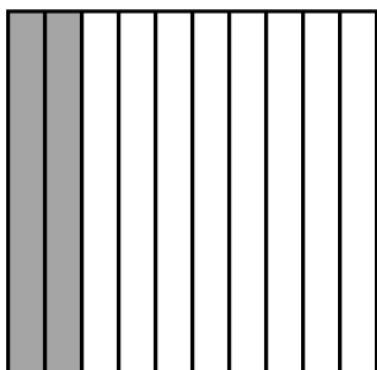
Then select the correct comparison symbol.



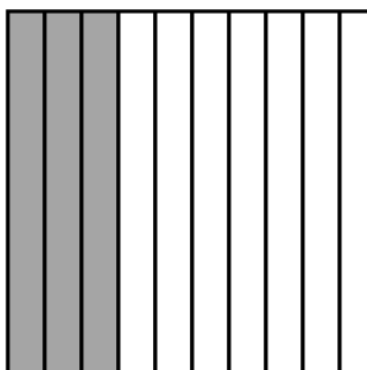
$<$
 $>$
 $=$



Answer:



$<$



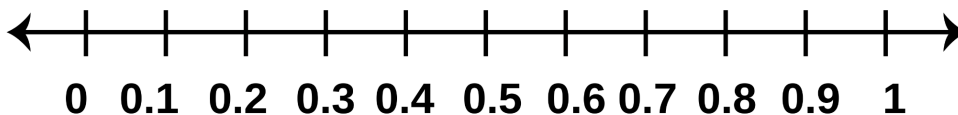
represent and compare decimals.

This is an easy item because both decimals are limited to the tenths place and are less than 1.

Approaching Proficiency: Compare two decimals to the hundredths using models.

A number line is given. ⁺

Part A: Drag each number to its correct location on the number line.



0.38

0.6

This is a DOK 2 item because students must plot decimals on a number line and make a comparison.

This is an easy item because at least one decimal is to the hundredths place with both less than 1.

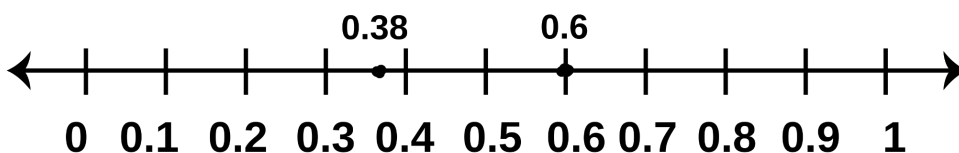


Part B: Select the correct comparison symbol.

$$\boxed{0.38} \begin{matrix} < \\ > \\ = \end{matrix} \boxed{0.6}$$

Answers:

Part A:



Part B:

$$\boxed{0.38} < \boxed{0.6}$$

At Proficiency: Make comparisons about two decimals up to the hundredths by reasoning about their size based on the same whole.

Mr. Shelby bought a new plant. The plant grew 2.6 centimeters in the first week and 3.4 centimeters in the second week.⁺

Select all true comparisons of the plant growth for the two weeks.

- a. $2.6 > 3.42$
- b. $3.42 > 2.6$
- c. $2.6 < 3.42$
- d. $3.42 < 2.6$
- e. $2.6 = 3.42$

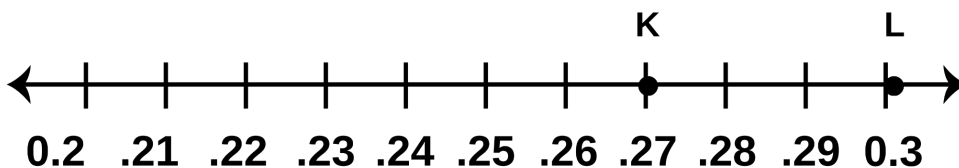
This is a DOK 2 item because students must compare decimals from a given situation.

This is a difficult item because at least one decimal number is to the hundredths place and at least one number is greater than 1.

The location of points *K* and *L* on the number line represent decimal numbers.⁺

This is a DOK 3 item because students must justify comparisons of decimals by reasoning about their size.

This is a medium



difficulty item because at least one decimal is to the hundredths place with both decimals less than 1.

Which statement explains why 0.3 is greater than .27?

- a. 3 is greater than 27.
- b. 27 is greater than 3.
- c. **3 tenths is greater than 27 hundredths.**
- d. 27 hundredths is greater than 3 tenths.

Above Proficiency: Apply knowledge of decimal place values up to the hundredths to complete, make, and justify comparisons.

Complete the table to show a possible missing digit to make each comparison true.⁺

Comparison	Missing Digit
$2.7 < 2.\square$	
$0.23 > 0.\square$	

Answers:

First line: 8 or 9

Second line: 2, 1, or 0

This is a DOK 3 item because students must construct and identify decimals that fit given parameters.

This is a difficult item because it includes at least one decimal number to the hundredths place, with at least one number greater than 1.

Roger claims that 2.48 is greater than 2.63 because 8 is greater than 3.⁺

Why is Roger's claim incorrect?

Answer: Student answers should include reasoning and conclusions about the tenths place being greater than the hundredths place.

Example: Roger is incorrect because he is comparing the hundredths place which is less than the tenths place. 2.63 is greater than 2.48 because 0.6 is greater than 0.4.

This is a DOK 3 item because students must justify comparisons of decimals by reasoning about their size.

This is a difficult item because it includes at least one decimal number to the hundredths place, with at least one number greater than 1.