See this page in the course material.

Learning Outcomes

- Order decimals and fractions

Order Decimals and Fractions

In an earlier lesson, we compared two decimals and determined which was larger. To compare a decimal to a fraction, we will first convert the fraction to a decimal and then compare the decimals.

example

Order [latex]({\Large\frac{3}{8}})[/latex] and [latex](0.4)[/latex] using [latex]&lt[/latex] or [latex]\text{>.}[/latex]

Solution

	[latex]({\Large\frac{3}{8}})[/latex] [latex](0.4)[/latex]
Convert [latex]\Large\frac{3}{8}[/latex] to a decimal.	[latex](0.375)[/latex] [latex](0.4)[/latex]
Compare [latex]0.375[/latex] to [latex]0.4[/latex]	[latex]0.375<0.4[/latex]
Rewrite with the original fraction.	[latex]{\Large\frac{3}{8}}<0.4[/latex]

try it

See this interactive in the course material.

When ordering negative numbers, remember that larger numbers are to the right on the number line and any positive number is greater than any negative number.

example

Order [latex](-0.5)[/latex] and [latex](-{\Large\frac{3}{4}})[/latex] using [latex]&lt[/latex] or [latex]\text{>.}[/latex]

Show Solution

Solution

	[latex](-0.5)[/latex] [latex](-{\Large\frac{3}{4}})[/latex]
Convert [latex]-{\Large\frac{3}{4}}[/latex] to a decimal.	[latex](-0.5)[/latex] [latex](- 0.75)[/latex]
Compare [latex]-0.5[/latex] to [latex]-0.75[/latex].	[latex]-0.5>-0.75[/latex]
Rewrite the inequality with the original fraction.	[latex]-0.5>-{\Large\frac{3}{4}}[/latex]

try it

See this interactive in the course material.

example

Write the numbers [latex]{\Large\frac{13}{20}},0.61,{\Large\frac{11}{16}}[/latex] in order from smallest to largest.

Show Solution

Solution

	[latex]{\Large\frac{13}{20}},0.61,{\Large\frac{11}{16}}[/latex]
Convert the fractions to decimals.	[latex]0.65,0.61,0.6875[/latex]
Write the smallest decimal number first.	[latex]0.61[/latex] , _____ , _____
Write the next larger decimal number in the middle place.	[latex]0.61,0.65[/latex] , _____
Write the last decimal number (the larger) in the third place.	[latex]0.61,0.65,0.6875[/latex]
Rewrite the list with the original fractions.	[latex]0.61,{\Large\frac{13}{20}},{\Large\frac{11}{16}}[/latex]

try it

See this interactive in the course material.

To see more examples, watch this video example.

Video Link

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