

Curriculum Outcome

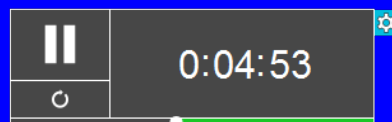
N1: Demonstrate an understanding of rational numbers by: comparing and ordering rational numbers; solving problems that involve arithmetic operations on rational numbers.

Student Friendly:
How to identify a rational numbers and how to write a rational number


Sep 7-2:50 PM

Quiz Day

Separate your desk




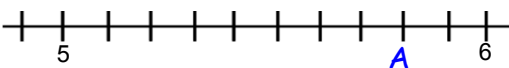
Sep 12-8:23 AM



Natural Numbers	N
Whole Numbers	W
Integers	I
Rational	Q
Irrational	\overline{Q}
Real	R

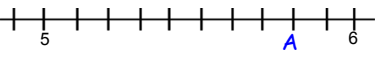
Mar 20-7:21 PM




<p>Write $\frac{4}{5}$ as a decimal.</p>	<p>Express A as a mixed fraction.</p> 	<p>What is a rational number? <i>You must be specific about three things!</i></p>
<p>State two rational numbers between -5.4 and -5.5</p>		<p>Write two equivalent fractions!</p> $\frac{-8}{9}$

Oct 31-3:53 PM


Warm Up

<p>Write $\frac{4}{5}$ as a decimal.</p> <p>$4 \div 5$ = 0.8</p>	<p>What is a rational number? You must be specific about three things!</p> <p>fraction → decimals that end → decimals that repeat</p>
<p>State two rational numbers between -5.4 and -5.5</p> <p>-5.40 -5.50</p> <p>-5.41 -5.42 -5.49</p>	<p>Express A as a mixed fraction.</p> 
<p>Write two equivalent fractions!</p> <p>$\frac{-8}{9}$</p> <p>$-\frac{8}{9}$</p> <p>$-\frac{16}{18}$</p>	

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Rational Numbers



- any number that can be written as fraction
- any number that ends
- any decimal number that repeats

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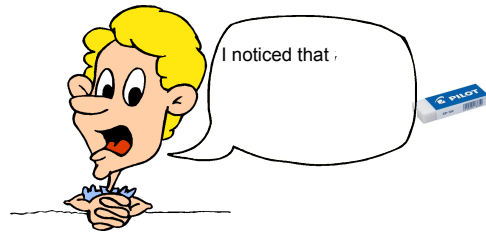
Use a calculator to determine the value of each rational number.

$$-\frac{7}{5} =$$

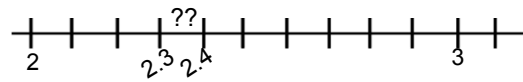
$$-\frac{7}{5} =$$

$$-\frac{7}{5} =$$

What did you notice??



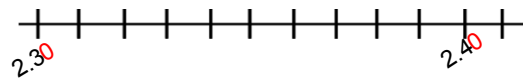
Oct 26-10:22 PM



Hint... Add a zero place holder at the end of the decimal.

2.30

2.40



Oct 27-8:02 PM

Write the rational number that matches with the letter.

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$5 \frac{8}{10} = 5 \frac{4}{5} = 5.8$
 $3 \frac{2}{5} = 3.4$
 $-2 \frac{1}{10} = -2.1$
 $-5 \frac{3}{5} = -5.6$
 $-5 \frac{1}{5} = -5.2$

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1. Change the fractions to decimals.

$2 \div 5 = \frac{2}{5} = 0.4$
 $\frac{3}{4} = 0.75$

$0.4 < 0.75$

What numbers are between $\frac{3}{4}$ and $\frac{2}{5}$?

There are two ways!

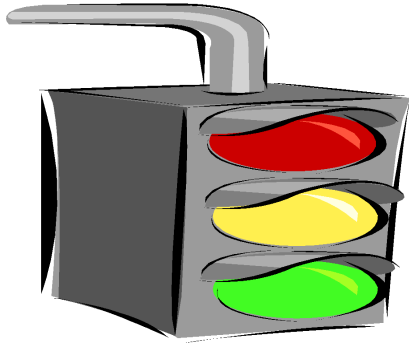


2. Write the fractions with common a denominator.

$\frac{2}{5} \times 4 = \frac{8}{20}$
 $\frac{3}{4} \times 5 = \frac{15}{20}$

$\frac{8}{20} < \frac{15}{20}$

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Homework

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Questions:
5, 6, 7,

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Changing fractions to decimals...

Express each fraction as a decimal, then sort as a repeating or terminating decimal.

Repeating

$$\frac{-5}{9}$$

$$\frac{6}{27} \quad \frac{27}{33}$$

Terminating

$$\frac{-8}{5}$$

$$\frac{20}{-10}$$

$$\frac{18}{12}$$

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★ The numerator is LARGER than the denominator.

Improper vs. Mixed Fractions

This is a **Improper Fraction**

$$\frac{7}{3}$$

Mixed Fraction
Integer + Fraction

$$2 \frac{1}{3}$$



$$\frac{18}{5} = 3 \frac{3}{5}$$

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Mixed Fractions vs. Improper

$$10\frac{3}{4} = \frac{43}{4}$$

Diagram showing the conversion of the mixed fraction $10\frac{3}{4}$ to the improper fraction $\frac{43}{4}$. A blue arrow points from the whole number 10 to the denominator 4, with a '+' sign above it. Another blue arrow points from the numerator 3 to the denominator 4, with an 'x' below it. The result is an improper fraction with numerator 43 and denominator 4.

$$-2\frac{1}{3} = -\frac{7}{3}$$

Diagram showing the conversion of the mixed fraction $-2\frac{1}{3}$ to the improper fraction $-\frac{7}{3}$. A blue arrow points from the whole number 2 to the denominator 3, with a '+' sign above it. Another blue arrow points from the numerator 1 to the denominator 3, with an 'x' below it. A red arrow points from the 2 to the 7 in the numerator of the improper fraction. Below the mixed fraction is the decimal $-2.\overline{33}$.

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Arrange the numbers from least to greatest.



$$-\frac{3}{8}, \frac{5}{9}, -\frac{10}{4}, -1\frac{1}{4}, \frac{7}{10}, \frac{8}{3}$$

Diagram showing the numbers $-\frac{3}{8}, \frac{5}{9}, -\frac{10}{4}, -1\frac{1}{4}, \frac{7}{10}, \frac{8}{3}$ with lines pointing to a common baseline for comparison.

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Arrange the numbers from least to greatest.

Change the numbers to decimals!



~~$-\frac{3}{8}$~~ , ~~$\frac{5}{9}$~~ , ~~$-\frac{10}{4}$~~ , ~~$-\frac{1}{4}$~~ , ~~$\frac{7}{10}$~~ , $\frac{8}{3}$
~~-0.375~~, ~~0.555...~~, ~~-2.5~~, ~~-1.25~~, 0.7, 2.666...

Least...



- 2.5
- 1.25
- 0.375
- 0.555...
- 0.7
- 2.666..

...Greatest

$-\frac{10}{4}$, $-1\frac{1}{4}$, $-\frac{3}{8}$, $\frac{5}{9}$, $\frac{7}{10}$, $\frac{8}{3}$

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Find two rational numbers between...

(Decimals may be used on this side.)

(NO Decimals please!!)

$\frac{-3}{8}$ $\frac{-4}{8}$
 $\times 10$ $\times 10$
 -0.375 -0.5
 $\frac{-30}{80}$ $\frac{-40}{80}$

show your work!

$\frac{5}{8}$ $\frac{6}{8}$

Go to a bigger denominator
Find equivalent Fractions

$\frac{10}{16}$ $\frac{12}{16}$

$\frac{-31}{80}$, $\frac{-32}{80}$

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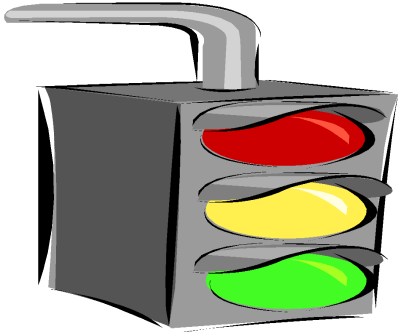
Which rational number is larger??

(Decimals may be used on this side.) (NO Decimals please!!.)

$\frac{-12}{15}$	$\frac{-13}{16}$		$\frac{2}{3}$	$\frac{3}{4}$
-0.8000	-0.8125	Show Your Work!	$\frac{8}{12}$	$\frac{9}{12}$
			$\frac{16}{24}$	$\frac{18}{24}$

x 6

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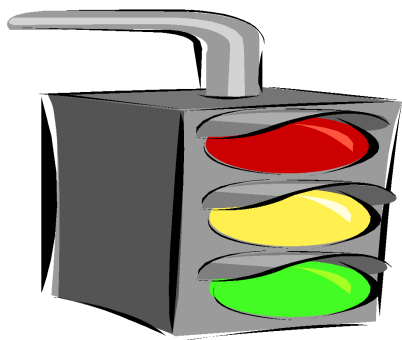
Homework

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Questions:

8, 10cd, 12af, 16bf,
17ac, 21, 24ac, 27

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Homework

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Questions:

8, 10cd, 12af, 16bf,
17ac, 21, 24ac, 27\

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