

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 and write rational numbers

Sep 7-2:50 PM



Warm Up

Solve Each of The Following In Your Notebooks

1) $3 + 7(10-6) - 2 =$

2) $10 \times 5 + 3(12-3) =$

No talking try it on your own

Sep 6-3:26 PM



Warm Up

BEDMAS

□

Solve Each of The Following In Your Notebooks

1) $3 + 7(10-6) - 2 =$

$$3 + 7(4) - 2$$

$$3 + 28 - 2$$

$$31 - 2$$

$$29$$

No talking try it on your own



Sep 6-3:26 PM



Warm Up

BE DMAS

Solve Each of The Following In Your Notebooks

2) $10 \times 5 + 3(12-3)$

$$10 \times 5 + 3(9)$$

$$50 + 27$$

$$77$$

No talking try it on your own

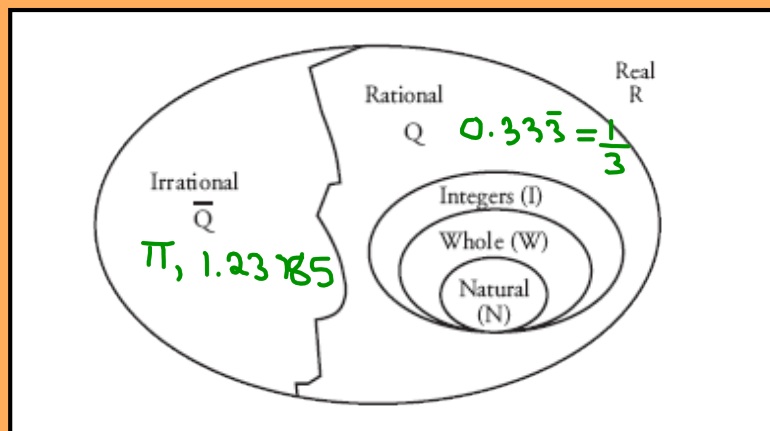
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Chuck Norris of Numbers

Feb 3-8:08 AM

Review of Types of Number Systems



Mar 20-7:21 PM

THE NUMBER SYSTEM

Natural Numbers : All positive non-zero numbers
 Counting numbers Ex. 1, 2, 3 etc

Whole Numbers: Counting numbers including zero.
 Ex. 0, 1, 2, 3, etc

Integers: Are all positive and negative whole numbers.
 (Remember zero is neither negative or positive)
 Ex:3,2,1,0,-1-2,-3...

Rational Numbers: All whole numbers, fractions, mixed numbers, decimals and their negatives
 The decimal must repeat or terminate also.
 Ex: $\frac{1}{3}$, $\frac{4}{7}$, $\frac{3}{4}$

Irrational Numbers: Decimals that never terminate or repeat.
 Ex: $\sqrt{\quad}$

Real Numbers: All rational and irrational numbers are real numbers
 Ex: All possible numbers

Mar 20-7:44 PM

Suppose you are ice fishing on Blanchford Lake, NWT. The temperature at midnight is -12°C . At 6 am the next day, the temperature is -11°C . What must the temperature have been at some time during the night?

-12°C ? ? ? -11°C

-11.5
 -11.6
 -11.87532

Oct 26-9:30 PM

$\frac{21}{1}$ $\frac{8}{4}$ 7.51 $\frac{8}{9}$

Yes! Are these numbers rational?

0.52 8 3.0

Oct 27-8:53 PM

How to change a fraction to a decimal:

Take the top and divide by the bottom

$$\frac{3}{8}$$

$3 \div 8 = 0.375$

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



$$-\frac{7}{5} = -7 \div 5 = -1.4$$

(-)
Neg
+/-

$$-\frac{7}{5} = -(7 \div 5) = -1.4$$

What did you notice??

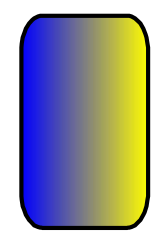
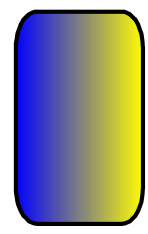
$$-\frac{7}{5} = 7 \div -5 = -1.4$$



Oct 26-10:22 PM

Write 2 more equivalent fraction to the following:

$$\frac{-4}{9} \quad \frac{4}{-9} \quad -\frac{4}{9}$$



$$\frac{1}{3} + \frac{2}{-5}$$

$$\frac{1}{3} + \frac{-2}{5}$$

Sep 16-11:29 AM

Changing fractions to decimals

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

Repeating	↓	↓	Terminating
$\frac{-5}{9}$ -0.5555			$\frac{20}{-10}$ -2
$\frac{27}{33}$ 0.818181			


Repeating Decimal: a decimal that has a pattern that goes on forever

Terminating Decimal: a decimal that ends

Oct 31-5:25 PM

★ The numerator is LARGER than the denominator.

Improper vs. Mixed Fractions



$\frac{7}{3}$ This is a **Improper Fraction** \longleftrightarrow **Mixed Fraction Integer + Fraction** 😊

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

You try:

$$-\frac{15}{4} = -3\frac{3}{4}$$

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Mixed Fractions to Improper

$$2\frac{5}{6} = \frac{17}{6}$$

$$-3\frac{1}{8} = -\frac{25}{8}$$

You Try

$$5\frac{3}{7}$$

$$-4\frac{1}{3}$$

Sep 10-2:54 PM

Arrange the numbers from least to greatest.



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

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Arrange the numbers from least to greatest.

Change the numbers to decimals!



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

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

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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What numbers are between

$\frac{3}{4}$ and $\frac{2}{5}$?



1. Change the fractions to decimals.

$$\frac{2}{5} = 0.40$$

$$\frac{3}{4} = 0.75$$

2. Write the fractions with common denominator.

$$\frac{2}{5} \xrightarrow{\times 4} \frac{8}{20}$$

$$\frac{3}{4} \xrightarrow{\times 5} \frac{15}{20}$$

$$\frac{10}{20} \quad \frac{12}{20} \quad \frac{13}{20}$$

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Which rational number is larger??

(Decimals may be used on this side.)

(NO Decimals please!!.)

$$\frac{12}{15} < \frac{13}{16}$$

$$0.8 < 0.8125$$

$$\frac{2}{3} < \frac{3}{4}$$

$$\frac{8}{12} < \frac{9}{12}$$



Be careful with negative numbers:

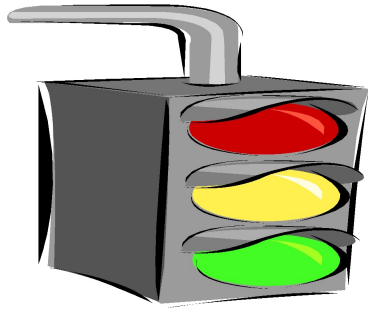
$$-1 > -3$$

↑ smaller

$$-0.50 > -0.75$$

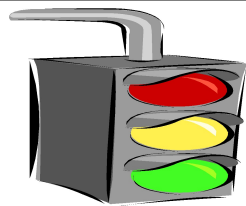
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Now it is
time for
Home
Learning

Oct 27-10:41 PM



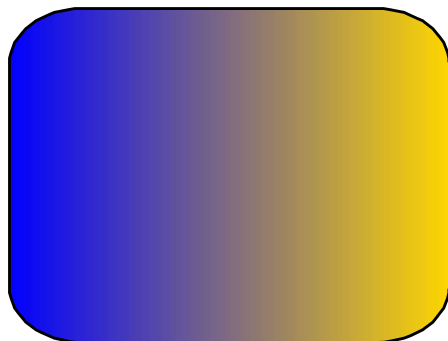
Homework

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Questions:

5, 6, 7, 12aceh, 13,
14aceg, 16bf, 17ac,
21, 23ad, 24ac

Note:
If the questions have **ONLY** fractions in them than you must have fractional answers. If the questions have decimal and fractions, then your answer can either be in decimal for of fraction form



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