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:
"Adding Fractions and Adding Decimals"

Sep 7-2:50 PM

Write $\frac{4}{5}$ as a decimal.

$4 \div 5$

$=0.8$

Warm Up

What is a rational number?

-Fraction:

***any decimal that ends or repeats ***

State two rational numbers between -5.4 and -5.5

- 5.40   -5.50

-5.41
-5.42
-5.43
⋮
-5.49

Explain which number is larger:

$\frac{7}{5}$ $\frac{16}{15}$

(×3)

$\frac{21}{15}$ $\frac{16}{15}$

bigger

Write two equivalent fractions!

$\frac{-8}{9}$

$\frac{8}{-9}$ $-\frac{8}{9}$

Oct 31-3:53 PM

3.2 Adding Rational Numbers

Oct 29-9:43 AM

Addition of Integers

Copy Down

If the signs are the **same**:

Keep the same sign, and ADD.

$$(-4)+(-2)=-6$$

If the signs are **different**:

Cover up the signs
Find the biggest number
Take the sign of the BIGGEST number,

$$(-8)+(2)=-6$$

Eight is bigger than 2, when you
don't look at the negative sign.

Oct 29-9:46 AM

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We use the same rules with decimals:

1) $(-2.1) + (-1.7) =$ ___-3.8___

2) $(-6.8) + 1.5 \ =$ ___-5.3___

3) $(-7.1) + 12.3 =$ ___$+5.2$___

> If you use a calculator, make sure you know how to input negative numbers!

Oct 29-10:05 AM

Adding Fractions

When adding fractions you need a COMMON DENOMINATOR:

1) $\dfrac{-5}{8} + \dfrac{6}{8}$ 2) $\dfrac{-8}{7} + \dfrac{-4}{7}$

$= \dfrac{1}{8}$ $= \dfrac{-12}{7}$

Oct 29-10:22 AM

$$\frac{3}{5} + \frac{4}{-5}$$

$$\frac{3}{5} + \frac{-4}{5}$$

$$\frac{-1}{5}$$

Sep 17-8:50 AM

What happens if the denominators are different?

Find a Common Denominator by determining the LCM.

L owest

C ommon

M ultiple

Oct 30-3:39 PM

$$\frac{3}{4} + \frac{-5}{6}$$

Find the LCM first!

4,8,12,16,
6,12,18

$$= \frac{9}{12} + \frac{-10}{12}$$

×3   ×2

$$= \frac{-1}{12}$$

Oct 30-3:46 PM

You try:

$$\frac{3}{5} + \frac{1}{6}$$
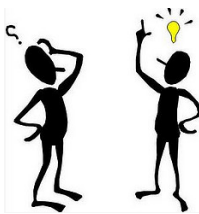
5,10,15,20,25,30,35

6,12,18,24,30

×6   ×5

$$= \frac{18}{30} + \frac{5}{30}$$

$$= \frac{23}{30}$$

Sep 10-11:25 AM

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What about mixed numbers?   Option 1

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

Step 1: Write each mixed number as an improper fraction.

$$\frac{7}{3} + \frac{13}{5}$$

$\times 5$ $\times 3$

Step 2: Find a common denominator, and then add numerators.

$$\frac{35}{15} + \frac{39}{15}$$

$$\frac{74}{15}$$

$$4\ \frac{14}{15}$$

Oct 30-4:02 PM

What about mixed numbers?   Option 2

Not going to teach

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

Step 1: Add Integers together .

$$2 + 2 = 4$$

Step 2: Add Fractional parts together (must have common denominators).

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

$$\underline{\quad} + \underline{\quad}$$

$$\underline{\quad}$$

Step 3: Add the integer with the fraction

$$+$$

$$=$$

Oct 30-4:02 PM

6

You try!

1) $5\frac{7}{8} + (-3\frac{1}{2})$

$$= \frac{47}{8} + \frac{-7}{2}$$ $\Big) \times 4$

$$= \frac{47}{8} + \frac{-28}{8}$$

$$= \frac{19}{8}$$

$$= 2\frac{3}{8}$$

Oct 30-4:28 PM

You try!

2) $(-1\frac{2}{3}) + (-2\frac{1}{4})$

$$= \frac{-5}{3} + \frac{-9}{4}$$

$\times 4 \quad\quad\quad\quad \times 3$

$$= \frac{-20}{12} + \frac{-27}{12}$$

$$= \frac{-47}{12}$$

$$= -3\frac{11}{12}$$

Sep 17-9:18 AM

NO Number lines

Must work with fractions when the question has all fractions

Now it is time for Home Learning

Nov 1-8:56 PM

Class/Homework

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Don't just give answers copy down the addition statement (Not directions)

Must show work when you see fractions

NO Number lines

8 (all) Leave in fractional form (no calculator)

9 (acf) Use Calculators

11(acegi) (Without calculator)

13, 16, 17(a, b, c), 18, 19(a, c), 20(ac)

Nov 1-8:56 PM