

Lesson 4-1 "Sets of Rational Numbers" pg. 33

Learning Target: I will identify rational #'s

Vocab: set, subset, rational #, ellipses

Qs

As

① How do you convert a decimal to a fraction?

ex) $0.75 \rightarrow$ Fraction?

Step 1: move decimal RT until whole #

2: put over $1 \frac{1}{2}$ # of times moved as zeros

3: Simplify

$$0.75 = \frac{75}{100}$$

$$\frac{75}{100} = \frac{25}{25} = \frac{3}{4}$$

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

② What are rational #'s?

def: # that can be written as a fraction $\frac{a}{b}$ where $b \neq 0$

natural $1 \rightarrow \dots$ $\boxed{5}$

whole $0 \rightarrow \dots$ $\boxed{5}$

integer whole # + neg version $\boxed{-5}$ $\boxed{5}$

rational rest $\boxed{-15}$ $\boxed{-5.7}$ $\boxed{5.9}$ $\boxed{5.9}$
 $\boxed{3}$

ex) $-12 \rightarrow \boxed{\frac{-12}{1}} = R$

ex) $12.1 \rightarrow 12.1 \xrightarrow{1} \boxed{\frac{121}{10}} = R$

ex) $1 \frac{4}{7} = \frac{11}{7} = \boxed{\frac{11}{7}} = R$

SMP
Reason abstractly.

Lesson 4-2 "Adding Rational #'s" p. 36

LT: I will add 2 or more rational #'s

Words: common denominator.

Qs

Q) How do you add rational #'s?

step 1: use all rules that apply.

(Fraction, integer, decimal)

+ Rules

Fraction - common denom.

Integer - same + & bigger
diff - & bigger sign

decimal - line up.

As

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

$$\begin{array}{r} \downarrow \quad \downarrow \\ 4\frac{1}{2} \quad 1\frac{2}{3} \\ \downarrow \quad \downarrow \\ -\frac{9}{2} + \frac{5}{3} \end{array}$$

change to improper

now use integer rule diff → subtract

$$\begin{array}{r} \frac{9 \times 3}{2 \times 3} = \frac{27}{6} \\ - \frac{5 \times 2}{3 \times 2} = \frac{10}{6} \\ \hline \frac{27-10}{6} = \frac{17}{6} \end{array}$$

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

$2\frac{5}{6} \rightarrow \frac{27}{6}$ is bigger & it was negative so

$$\boxed{-2\frac{5}{6}}$$

ex) $-3.49 + 7.22 =$ diff so -

$$\begin{array}{r} 7.22 \\ -3.49 \\ \hline \end{array}$$

$\boxed{1.73}$ bigger # 7.22 = +

Smp: model w/ math