Do Now:

1) -17 + 9 = -8

2) 5 - 16 = -11

3) 3a + (-7a) = -4a

4) 15x - 5x = 10x

5.1 Fractions with Common Denominators

7.NS
7.EE

$\frac{1}{8} + \frac{3}{8} = \frac{4}{8} = \frac{1}{2}$

- SWBAT add and subtract fractions with common denominators.
- SWBAT understand numbers; compute fluently.
- Calculators: No

Adding and Subtracting Fractions

To add or subtract fractions:

1) Denominators must be the same
-If not the same, find the LCD

2) Add or subtract the numerators

Find the sum or difference.

a.) $\frac{-11}{13} + \frac{8}{13} = \frac{-11+8}{13} = \frac{-3}{13}$ Same, Simplify?

b.) $-5\frac{6}{7} + 3\frac{2}{7}$ Reduced?

$-\frac{41}{7} + \frac{23}{7} = \frac{-41+23}{7} = \frac{-18}{7} = -2\frac{4}{7}$

3 4 X 11
-23
18

Find the sum or difference.

a.) $\frac{-4}{7}+\frac{2}{7}$ = $\frac{-2}{7}$

b.) $-9\frac{1}{3}+6\frac{2}{3}$ = $\frac{-8}{3}$ or $-2\frac{2}{3}$

$(-9+6)+(\frac{1}{3}+\frac{2}{3})$ BAD

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

Find the sum or difference.

a.) $\frac{-a}{9}+\frac{7a}{9}$ Same $= \frac{-1a+7a}{9}$ Combine Like Terms $= \frac{6a}{9}$ Reduce $\div 3$ $= \frac{2a}{3}$

b.) $\frac{6x}{11y}-\frac{10x}{11y} = \frac{6x-10x}{11y} = \frac{-4x}{11y}$

$\frac{7x\cdot a}{10y\cdot a}+\frac{3x\cdot y}{10a\cdot y}$

Different

LCD: $10ay$ $\frac{7xa}{10ay}+\frac{3xy}{10ay}$

$\frac{7xa+3xy}{10ay}$

Find the sum or difference.

a.) $\frac{-2b}{5}+\frac{12b}{5}$ = $2b$

b.) $\frac{7c}{12d}-\frac{10c}{12d} = \frac{7c-10c}{12d}$

$\frac{-3c}{12d}\div 3 = \frac{-1c}{4d} = \frac{-c}{4d}$ $7c-10c=-3c$

Find the sum or difference.

a.) $-\frac{2}{11}-\frac{5}{11}+\frac{9}{11}$ $= \frac{-2-5+9}{11}$ $= \frac{2}{11}$

Same

PEMDAS

b.) $3\frac{6}{7}+2\frac{3}{7}-4\frac{5}{7}$ $= \frac{27}{7}+\frac{17}{7}-\frac{33}{7} = \frac{27+17-33}{7}$ $= \frac{11}{7} = 1\frac{4}{7}$

Same

Find the sum or difference.

a.) $\frac{3}{4}+\frac{7}{4}+\frac{5}{4} = \frac{15}{4}$

b.) $-\frac{15}{8}-\frac{7}{8}-\frac{3}{8} = \frac{-25}{8}$

c.) $-2\frac{1}{3}-\frac{2}{3}+3\frac{2}{3} = \frac{2}{3}$

A corn snake that is $14\frac{3}{4}$ inches long grows g inches to a length of $27\frac{1}{4}$ inches. How much does it grow?

Total = Part + Part

$27\frac{1}{4} = 14\frac{3}{4} + g$

$\frac{109}{4} = \frac{59}{4} + g$

$-\frac{59}{4} \quad -\frac{59}{4}$

$\frac{50}{4} = g$

$12\frac{2}{4}$

$12\frac{1}{2}$ inches

$\frac{59}{4}-\frac{59}{4}=\frac{0}{4}$

$= 0$

Monday morning, the pile of leaves was $11\frac{1}{4}$ inches high. Tuesday morning, the pile was $7\frac{3}{4}$ inches high. By how many inches did the pile change?

Exit Pass 5.1

Describe and correct the error.

$$\frac{3}{4}+\frac{3}{4}=\frac{3+3}{4+4}=\frac{6}{8}$$

"Don't blame the sea if you cannot catch a fish."

Working individually or with a partner, complete the workbook.

Workbook pg.

Reflection of Today's Lesson

5.1 Fractions with Common Denominators

7.NS
7.EE

- SWBAT add and subtract fractions with common denominators.
- SWBAT understand numbers; compute fluently.
- Calculators: No

Homework

pg. 222 #13-43 odds