GRADE 10 ESSENTIAL
UNIT X – PRIOR STUDIES – FRACTIONS

Name:_____
Date: _____

ADDING AND SUBTRACTING FRACTIONS

Adding and subtracting fractions is sometimes more difficult than multiplying because you need to have the same denominator (ie: the same size slice)

These ones are easy since they are the same denominator.

Lesson 1 Addition and Subtraction

Add the numerators.

$\frac{7}{8}+\frac{5}{8}=\frac{7+5}{8}=\frac{12}{8}=1\frac{1}{2}$

Use the same denominator.

$\frac{7}{8}+\frac{5}{8}=\frac{12}{8}=1\frac{1}{2}$

Subtract the numerators.

$\frac{5}{6}-\frac{1}{6}=\frac{5-1}{6}=\frac{4}{6}=\frac{2}{3}$

Use the same denominator.

$\frac{5}{6}-\frac{1}{6}=\frac{4}{6}=\frac{2}{3}$

Change to simplest form.

Write each answer in simplest form.

	a	*b*	*c*	*d*
1.	$\frac{1}{5}+\frac{2}{5}$ $\frac{1}{5}+\frac{2}{5}=\frac{3}{5}$	$\frac{4}{7}+\frac{2}{7}$	$\frac{3}{4}+\frac{2}{4}$ $\frac{3}{4}+\frac{2}{4}=\frac{5}{4}=1\frac{1}{4}$	$\frac{5}{6}+\frac{4}{6}$
2. Subtract!	$\frac{5}{6}-\frac{4}{6}$ $\frac{5}{6}-\frac{4}{6}=\frac{5-4}{6}=\frac{1}{6}$	$\frac{7}{8}-\frac{3}{8}$	$\frac{5}{7}-\frac{2}{7}$	$\frac{9}{9}-\frac{4}{9}$

3.

$$\begin{array}{r} \frac{3}{10} \\ +\frac{6}{10} \\ \hline \end{array} \qquad \begin{array}{r} \frac{8}{9} \\ +\frac{4}{9} \\ \hline \end{array} \qquad \begin{array}{r} \frac{3}{8} \\ +\frac{3}{8} \\ \hline \end{array} \qquad \begin{array}{r} \frac{5}{12} \\ +\frac{5}{12} \\ \hline \end{array}$$

4.

$$\begin{array}{r} \frac{11}{12} \\ -\frac{3}{12} \\ \hline \end{array} \qquad \begin{array}{r} \frac{7}{8} \\ -\frac{2}{8} \\ \hline \end{array} \qquad \begin{array}{r} \frac{8}{9} \\ -\frac{5}{9} \\ \hline \end{array} \qquad \begin{array}{r} \frac{9}{10} \\ -\frac{4}{10} \\ \hline \end{array}$$

Of course you should be drawing some of these, especially if teaching your niece! Show how 1/5th of a chocolate bar plus 2/5th of a chocolate bar equals 3/5th of a chocolate bar:

Lesson 1 Problem Solving

Show work! ↓
(Even if trivial!)

Solve. Write each answer in simplest form.

1. Preston drank $\frac{1}{4}$ of a jug of milk yesterday and $\frac{1}{4}$ of a jug of milk today. How much milk did he drink during these two days?

$\frac{1}{4} + \frac{1}{4} = \frac{1+1}{4}$

$= 2/4 = \frac{1}{2}$

He drank 1/2 of a jug of milk.

2. Trina and Jamie have painted $\frac{3}{4}$ of a room. Jamie painted $\frac{1}{4}$ of the room. How much of the room did Trina paint?

Trina painted _____ of the room.

3. Tom has two boxes of cookies that are each $\frac{3}{8}$ full. How much of a box of cookies does he have altogether?

   He has _____ of a box of cookies.

4. Sam looked in the fridge and found one carton of eggs that was $\frac{5}{12}$ full and one carton that was $\frac{7}{12}$ full. How much of a full carton does Sam have?

   Sam has _____ carton.

5. A television show has just begun and will last $\frac{5}{6}$ h. After $\frac{4}{6}$ h, what part of an hour remains of the television show?

   _____ h remains of the television show?

6. Tess jogged $\frac{3}{4}$ h before work. That same day she jogged $\frac{3}{4}$ h after work. How long did she jog in all that day?

   She jogged _____h that day.

7. Max spent $\frac{5}{6}$ h typing. He spent $\frac{1}{6}$ h proofreading his typing. How long did he spend typing and proofreading in all?

   He spent _____h typing and proofreading.

8. In problem 7, how much longer did he spend typing than proofreading?

   He spent _____h more typing than proofreading.