FAMILY MATH

Adding and Subtracting Fractions

Dear Family,

Your student is learning to add and subtract fractions with like units. They use unit form, fraction form, and number lines to support their thinking. They learn to break apart a whole number so they can easily subtract. Your student also uses drawings to help them determine whether they need to add or subtract when solving word problems. They estimate to decide whether their answer is reasonable. The skills your student is learning now will support them later when they add and subtract mixed numbers.

Adding and Subtracting Fractions with Like Units

- Unit form

  4 eighths + 3 eighths = 7 eighths

  8 tenths − 6 tenths = 2 tenths

- Fraction form

  $\frac{5}{10} + \frac{2}{10} = \frac{7}{10}$

  $\frac{6}{8} - \frac{4}{8} = \frac{2}{8}$

Students use unit form and fraction form to write equations. Unit form helps students see that adding and subtracting fractions is similar to adding and subtracting whole numbers. For example, 4 ones + 3 ones = 7 ones *so* 4 eighths + 3 eighths = 7 eighths.

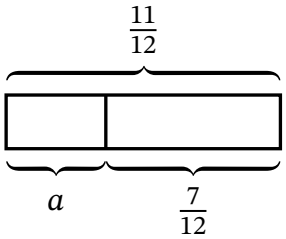
$2 - \frac{7}{10} = 1\frac{3}{10}$

1 and $\frac{10}{10}$

$\frac{10}{10} - \frac{7}{10} = \frac{3}{10}$

$1 + \frac{3}{10} = 1\frac{3}{10}$

Students learn to break apart a whole number by using fractions. 2 *is broken into* 1 *and* $\frac{10}{10}$ *because tenths is the unit that is subtracted from* 2.



$\frac{11}{12} - \frac{7}{12} = a$

$\frac{4}{12} = a$

There is $\frac{4}{12}$ of a pan of brownies left.

Drawing a model, such as a tape diagram, helps students decide whether to use addition or subtraction to solve a word problem.

At-Home Activity

Pizza Fractions

Practice adding and subtracting fractions with your student when eating pizza or any other food cut into equal pieces. You may also draw a picture to represent the pizza. Ask them questions such as the following to guide their thinking.

- "How many slices of pizza are in the whole? What fraction can we use to describe 1 slice?"
- "What fraction can we use to describe the whole pizza?"
- "What addition problem represents the fraction of pizza eaten if you eat 2 slices?"
- "What subtraction problem represents the fraction of pizza left over after we eat 3 slices of the whole pizza? What if we eat 5 slices?"