# LETTER HOME
Fraction Operations

Dear Family Member:

Students have been developing strategies for representing, comparing, and finding equivalent fractions. In this unit, students extend these representations and strategies to develop models and methods for adding, subtracting, multiplying, and dividing fractions. For example: *Carl ordered a pizza. One-third of the pizza had sausage on it. Three-fouths of that part also had mushrooms. What fraction of the pizza had sausage and mushrooms?*
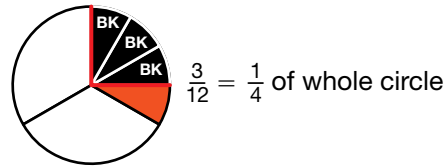
rectangle model:
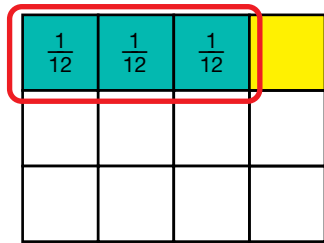
$$\frac{1}{3} \times \frac{3}{4} = \frac{3}{12} \text{ or } \frac{1}{4}$$
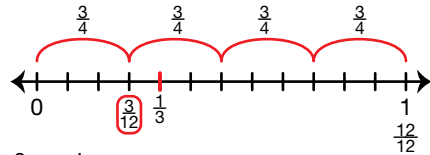
paper and pencil:

$$\frac{1}{3} \times \frac{3}{4} = \frac{1 \times 3}{3 \times 4} = \frac{3}{12} \text{ or } \frac{1}{4}$$

fraction circle pieces:

$\frac{3}{12} = \frac{1}{4}$ of whole circle

$$\frac{1}{3} \times \frac{3}{4} = \frac{3}{12} = \frac{1}{4} \text{ of the whole circle}$$

number line:

$\frac{3}{4}$ of $\frac{1}{3}$ divides the whole into twelths

Students use fraction circle pieces, drawings, paper folding (rectangles), and number line models to make sense of the operation and what happens to the result when working with fractions.

As we work together in class, here are some ways you can help your child at home:

This unit continues a systematic review and assessment of the multiplication and division facts.

Draw Pictures. Ask your child to draw a picture or representation of the problem. As shown above, students have been exposed to a variety of representations that make sense for different problem situations.

Make Sense of the Steps. Students that build on their number sense of fractions develop efficient and flexible strategies for adding, subtracting, and multiplying fractions. Encourage your child to estimate and check if his or her responses are reasonable to identify errors in calculations.

Convert a Favorite Recipe. Help your child identify a favorite family recipe and ask him or her to adjust the recipe ingredients for a larger or smaller number of people.

Thank you for taking time to talk with your child about what he or she is learning in math.

Sincerely,