



# Add, Subtract, and Multiply Fractions

Let's practice solving problems involving fractions.

## Warm-up

### Number Talk: Fluency and Fractions

Find the value of each expression mentally.

- $5 \times \frac{10}{5}$

- $9 \times \frac{6}{3}$

- $8 \times \frac{11}{4}$

- $6 \times \frac{12}{10}$



## Activity 1

### Let's Make Head Wraps!



Jada and Lin see a picture of head wraps made of African wax-print fabric. They decide to make their own head wraps.

1. Jada stitches together 5 pieces of fabric. Each piece has a length of  $\frac{2}{6}$  yard. Write an equation to show the total length of fabric Jada uses for her head wrap.
2. Lin stitches together 3 pieces of fabric. Each piece has a length of  $\frac{2}{3}$  yard. Write an equation to show the total length of fabric Lin uses for her head wrap.
3. Who uses more fabric? Explain or show your reasoning.

## Activity 2

### Make Two Yards of Fabric

Jada's and Lin's moms teach the fourth-grade class how to combine and use fabric pieces for head wraps. Here is the length of each piece of fabric.

$\frac{2}{6}$  yard

$\frac{2}{6}$  yard

$\frac{2}{6}$  yard

$\frac{11}{10}$  yard

$1\frac{2}{5}$  yards

$\frac{9}{10}$  yard

$\frac{2}{6}$  yard

$\frac{6}{12}$  yard

$\frac{3}{6}$  yard

$\frac{2}{6}$  yard

$\frac{2}{6}$  yard

$\frac{12}{12}$  yard

$\frac{2}{6}$  yard

$\frac{3}{5}$  yard

$\frac{2}{6}$  yard

Find as many different combinations of fabric that would have a length of 2 yards. Each piece of fabric can be used only one time. Write an equation for each combination.

## Activity 3

### Play by the Rules

1. Here are 4 fractions:  $\frac{15}{12}$   $\frac{7}{12}$   $\frac{21}{12}$   $\frac{18}{12}$

- a. What is the sum of all the fractions?
- b. Select 2 of the fractions with a difference that is less than  $\frac{1}{3}$ . Explain or show your reasoning.
- c. Select 2 of the fractions with a sum greater than 3. Explain or show your reasoning.



2. Here are 4 new fractions:  $\frac{5}{12}$   $\frac{8}{12}$   $\frac{3}{12}$   $\frac{2}{12}$

Use the fractions to make the value 1. Follow these rules.

- Use addition, subtraction, or both.
- Use all four fractions.
- Use each fraction only one time.

3. Use these fractions and the same rules to make the value 1.

$\frac{15}{10}$   $\frac{13}{100}$   $\frac{53}{100}$   $\frac{9}{10}$

