

## Grade 4 Unit 9

### Lesson 1

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## Unit 9 Lesson 1: Add, Subtract, and Multiply Fractions

### WU Number Talk: Fluency and Fractions (Warm up)

#### Student Task Statement

Find the value of each expression mentally.

- $5 \times \frac{10}{5}$
- $9 \times \frac{6}{3}$
- $8 \times \frac{11}{4}$
- $6 \times \frac{12}{10}$

### 1 Let's Make Head Wraps!

#### Student Task Statement



Jada and Lin saw a picture of head wraps made of African wax print fabric and would like to make their own.

1. Jada stitches together 5 pieces of fabric that each have a length of  $\frac{2}{6}$  yard. Write an equation to show the total length of fabric Jada used.
2. Lin stitches together 3 pieces of fabric that are each  $\frac{2}{3}$  yard long. Write an equation to show the total length of fabric Lin used.
3. Who used more fabric? Explain or show your reasoning.

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## 2 Make 2 Yards of Fabric

### Student Task Statement

Jada and Lin's moms taught the fourth-grade class how to combine and use fabric pieces for head wraps. The lengths of each piece of fabric are listed here.

$\frac{2}{6}$ 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 as you can. Each piece of fabric can only be used one time. Write an equation for each combination.

## 3 Play by the Rules

### Student Task Statement

1. Here are four fractions:  $\frac{15}{12}$   $\frac{7}{12}$   $\frac{21}{12}$   $\frac{18}{12}$
- What is the sum of all the fractions?
  - Select two fractions with a difference that is less than  $\frac{1}{3}$ . Show or explain your reasoning.
  - Select two fractions with a sum greater than 3. Show or explain your reasoning.

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

Use them to make the value 1, following these rules:

- Use addition, subtraction, or both.
  - Use all four fractions.
  - Use each fraction only one time.
3. Try to make the value of 1 again using the following fractions and the same rules.

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