

# Lesson 15: Fraction Division Situations

## Standards Alignments

Addressing 5.NF.B.7, 5.NF.B.7.c

### Teacher-facing Learning Goals

- Write situations and solve problems involving dividing a unit fraction and a whole number.

### Student-facing Learning Goals

- Let's write division situations and solve problems involving division of whole numbers and unit fractions.

## Lesson Purpose

The purpose of this lesson is for students to write and solve problems that involve dividing a whole number by a unit fraction and a unit fraction by a whole number.

In previous lessons, students learned how to divide a whole number by a unit fraction and a unit fraction by a whole number. They reasoned about relationships between dividends, divisors, and quotients. In this lesson, students apply what they have learned in this section to write and solve problems involving division of a whole number by a unit fraction and division of a unit fraction by a whole number. Before they solve the problems, they match each one with an equation. As students match each problem with an equation, they interpret the meaning of the equation in a context (MP2).

### Access for:

#### Students with Disabilities

- Engagement (Activity 1)

#### English Learners

- MLR8 (Activity 1)

## Instructional Routines

Card Sort (Activity 1), Number Talk (Warm-up)

## Materials to Copy

- Fraction Division Problem Sort (groups of 2): Activity 1

## Required Preparation

Gather poster from previous lesson that explains what students know and wonder about division of a unit fraction by a whole number.

**Lesson Timeline**

Warm-up	10 min
Activity 1	20 min
Activity 2	15 min
Lesson Synthesis	10 min
Cool-down	5 min

**Teacher Reflection Question**

What strategies did you anticipate today? Which did you not anticipate? What did you learn about student understanding from the strategies you did not anticipate?

**Cool-down** (to be completed at the end of the lesson)

🕒 5 min

## Match and Solve

**Standards Alignments**

Addressing 5.NF.B.7.c

**Student-facing Task Statement**

1. Match each expression to a situation. Answer each question.

○  $5 \div \frac{1}{4}$

○  $\frac{1}{4} \div 5$

a. Han cut 5 feet of ribbon into pieces that are  $\frac{1}{4}$  foot long. How many pieces are there?

b. Han cut a  $\frac{1}{4}$  foot long piece of ribbon into 5 equal pieces. How long is each piece?

**Student Responses**

1. a.  $5 \div \frac{1}{4} = 20$ . There are 20 pieces.

b.  $\frac{1}{4} \div 5 = \frac{1}{20}$ . Each piece is  $\frac{1}{20}$  foot long.