Lesson 11: Divide Unit Fractions by Whole Numbers

Standards Alignments

Addressing   5.NF.B.7.a
Building Towards   5.NF.B.7.a

Teacher-facing Learning Goals

- Divide a unit fraction by a whole number, in context, in a way that makes sense to them.

Student-facing Learning Goals

- Let's divide a unit fraction by a whole number.

Lesson Purpose

The purpose of this lesson is for students to divide a unit fraction by a whole number.

The purpose of this lesson is for students to determine the size of the piece when a unit fraction is divided into equally sized parts. Students revisit the context of a pan of macaroni and cheese from earlier lessons when they multiplied unit fractions by unit fractions. The familiar context can help students make connections between multiplication and division. Students should be encouraged to solve the problems in a way that makes sense to them. The relationship between multiplication and division is meant to be exploratory. In later lessons, students will formalize this relationship.

Access for:

♿ Students with Disabilities

- Representation (Activity 1)

Instructional Routines

MLR7 Compare and Connect (Activity 1), Number Talk (Warm-up)

Lesson Timeline

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

Teacher Reflection Question

How did the student work you selected impact the direction of the discussion? What student work might you pick next time if you taught the lesson again?

Cool-down   5 min

Cool-down (to be completed at the end of the lesson)   🕐 5 min

Share Macaroni and Cheese

Standards Alignments

Addressing   5.NF.B.7.a

Student-facing Task Statement

1. 6 people equally share $\frac{1}{2}$ a pan of macaroni and cheese.

   a. Draw a diagram to represent the situation.

   b. Write a division expression to represent the situation.

   c. How much of the whole pan does each person get?

Student Responses

1.   a. Sample responses: Students may draw a diagram that shows $\frac{1}{2}$ being divided into 6 equal pieces.

   b. $\frac{1}{2} \div 6$

   c. $\frac{1}{12}$