Lesson 14: Represent Division of Whole Numbers by Unit Fractions

Standards Alignments

Addressing   5.NF.B.7.b

Teacher-facing Learning Goals

- Divide a whole number by a unit fraction.
- Relate diagrams, situations and expressions that represent division of a whole number by a unit fraction.

Student-facing Learning Goals

- Let's solve problems involving division of a unit fraction by a whole number.

Lesson Purpose

The purpose of this lesson is for students to solve problems involving division of a unit fraction by a whole number and write equations to represent them.

In the previous lesson, students solved problems involving division of a whole number by a unit fraction. In this lesson, students continue to find quotients of a whole number by a unit fraction. In this lesson, however, they find the value of expressions without being provided a tape diagram. The numbers are not too large, however, so they may still draw a diagram if it is helpful. In the second activity, students look simultaneously at expressions involving quotients of a whole number by a fraction and quotients of a fraction by a whole number.

Access for:

♿ Students with Disabilities

- Action and Expression (Activity 1)

Instructional Routines

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

Lesson Timeline

Warm-up	10 min

Teacher Reflection Question

Reflect on times you observed students listening to one another's ideas today in class. What

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

norms would help each student better attend to their classmates' ideas in future lessons?

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

Solve and Match the Expression

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Student-facing Task Statement

1. A package has 2 cups of raisins. Each serving of raisins is $\frac{1}{4}$ cup.

   a. Does this situation match the expression $2 \div \frac{1}{4}$ or $\frac{1}{4} \div 2$? Explain or show your reasoning.

   b. How many servings of raisins are there in the package? Explain or show your reasoning.

Student Responses

1.   a. $2 \div \frac{1}{4}$ since the 2 cups is being divided into servings that are each $\frac{1}{4}$ cup.

   b. 8. Sample response: each cup has four $\frac{1}{4}$ cup so that's 8 total.