Lesson 5: Relate Division and Fractions

Standards Alignments

Addressing 5.NF.B.3

Teacher-facing Learning Goals

- Explain the relationship between division and fractions.

Student-facing Learning Goals

- Let's explain the relationship between division and fractions.

Lesson Purpose

The purpose of this lesson is for students to explain why $a \div b = \frac{a}{b}$ and apply their understanding to flexibly interpret division situations and equations where the unknown is the numerator, denominator, or the value of the quotient.

In this lesson, students generalize their understanding that a fraction can be interpreted as division of the numerator by the denominator. They interpret situations where a certain amount of pounds of blueberries is shared with a certain number of people when the pounds of blueberries each person gets is equal to 1, greater than 1, and less than 1. Then, they construct arguments about why an equation would make sense for any numerator and for any denominator. As they do so, they have a chance to use language precisely (MP6), explaining that the numerator a represents the number of objects being shared and the denominator b represents the number of equal shares.

This lesson has a Student Section Summary.

Access for:

Students with Disabilities

- Engagement (Activity 2)

Instructional Routines

MLR7 Compare and Connect (Activity 2), True or False (Warm-up)

Lesson Timeline

Warm-up	10 min
Activity 1	20 min

Teacher Reflection Question

How has your thinking about division changed since the beginning of the unit? What evidence did you see during this section of the unit that

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

each of your students extended their understanding of the meaning of division?

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

5 min

Explain It.

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Student-facing Task Statement

Explain why $8 \div 5 = \frac{8}{5}$.

Student Responses

Sample response: I can divide 8 into 5 equal parts. This is $8 \div 5$. Each of the parts is $\frac{1}{5}$ of one whole and since there are 8 wholes, $8 \div 5 = \frac{8}{5}$.