Unit 2, Lesson 5

Relate Division and Fractions

Let's explain the relationship between division and fractions.

Warm-up

True or False: Interpret Fractions

Decide if each statement is true or false. Be prepared to explain your reasoning.

- $5 \div 2 = \frac{5}{2}$

- $\frac{5}{2} = 5\frac{1}{2}$

- $\frac{6}{2} = 3$

Activity 1

Relate Pounds to People

	Each person gets _____ pound(s) of blueberries.			
	more than 1	exactly 1	less than 1	$\frac{1}{2}$
_____ people share 7 pounds of blueberries equally.	✓			
_____ people share _____ pounds of blueberries equally.		✓		
Three people share _____ pounds of blueberries equally.			✓	
_____ people share _____ pounds of blueberries equally.				✓

1. Fill in the blanks to match the rules in the table.
2. How many pounds of blueberries does each person get when they get more than 1 pound?
3. How many pounds of blueberries does each person get when they get less than 1 pound of blueberries?

(Pause your work after you answer the 2 questions.)

4. Work with your group to make a poster that explains or shows your thinking about the following questions.
   - What is true about all the pairs of numbers that are used when each person gets less than 1 pound of blueberries?
   - What is true about all the pairs of numbers that are used when each person gets more than 1 pound of blueberries?
   - What is true about all the pairs of numbers that are used when each person gets exactly $\frac{1}{2}$ pound of blueberries?

Activity 2

Why Does It Work?

1. What numbers can replace the question marks in each equation? Explain your reasoning.

$$? \div 2 = \frac{?}{2} \qquad\qquad 2 \div ? = \frac{2}{?}$$

_____

_____

_____

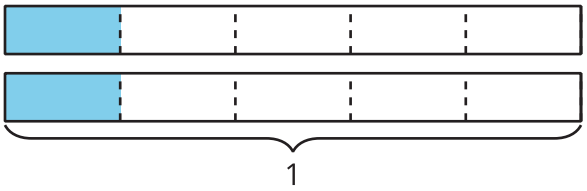
_____

(Pause for teacher directions.)

2. Work with your partner to explain why any division expression can be interpreted as a fraction. You can use diagrams, expressions, equations, and words.

Section A Summary

We learned that there is a relationship between division and fractions.

We can see this relationship in diagrams, situations, and equations.

Example: This diagram represents 2 sandwiches shared equally by 5 people. Each person gets $\frac{2}{5}$ of a sandwich. The equation $2 \div 5 = \frac{2}{5}$ also represents the situation.