## 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.

* $5÷2=\frac{5}{2}$
* $\frac{5}{2}=5\frac{1}{2}$
* $\frac{6}{2}=3$

### 5.1: 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 |  |  |  |  |
| \_\_\_\_\_\_\_\_\_ people share \_\_\_\_\_\_\_\_\_\_ pounds of blueberries |  |  |  |  |
| Three people share \_\_\_\_\_\_\_\_\_\_ pounds of blueberries |  |  |  |  |
| \_\_\_\_\_\_\_\_\_\_ people share \_\_\_\_\_\_\_\_\_\_ pounds of blueberries |  |  |  |  |

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

(Pause for teacher directions.)

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

### 5.2: Why Does It Work?

1. What numbers can replace the question marks in each equation? Explain your reasoning. $\begin{matrix}?÷2=\frac{?}{2}&&2÷?=\frac{2}{?}\end{matrix}$ (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 Summary

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

We can see this relationship in diagrams, situations, and equations. This diagram represents 2 sandwiches being shared equally by 5 people. Each person will get $\frac{2}{5}$ of a sandwich. The equation, $2÷5=\frac{2}{5}$ also represents the situation.





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