

# Lesson 5: Creating Division Stories

## Classwork

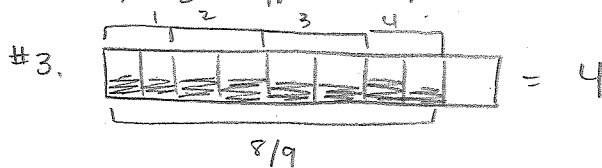
### Opening Exercise

Tape Diagram:

#1  $8 \div 2 = 4$

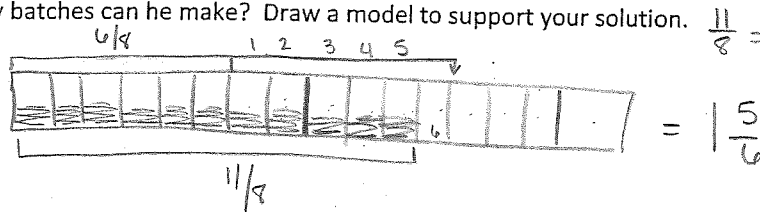
$$\frac{8}{9} \div \frac{2}{9}$$

#2  $\frac{8}{9} \div \frac{2}{9} = \frac{72}{18} \div \frac{18}{18} = \frac{4}{1} = 4$



Number Line:

Molly's friend, Xavier, also has  $\frac{11}{8}$  cups of strawberries. He needs  $\frac{3}{4}$  cup of strawberries to make a batch of tarts. How many batches can he make? Draw a model to support your solution.



$$\frac{3}{4} \times 2 = \frac{6}{4}$$

make equiv.

## Example 1

$$\frac{1}{2} \div \frac{1}{8}$$

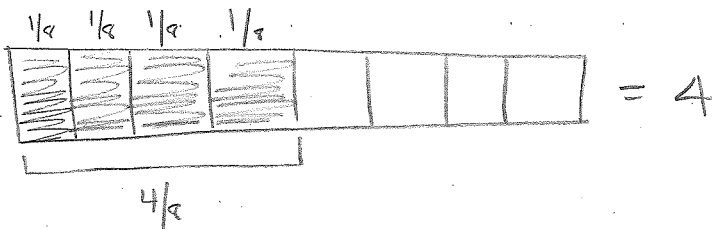
Not common denominators

Step 1: Decide on an interpretation.

$$\frac{1}{2} \times 4 = \frac{4}{2}$$

$$\frac{4}{8} \div \frac{1}{8}$$

Step 2: Draw a model.



Step 3: Find the answer.

Answer = 4

Since Denominators Same

$$4 \div 1 = 4$$

Multiplication Sent:

$$\frac{4}{8} \cdot \frac{8}{1} = \frac{32}{8} \div 8 = 4$$

Step 4: Choose a unit. (Answers vary)

We choose oz.

Step 5: Set up a situation based upon the model.

Tina uses  $\frac{1}{8}$  oz. of cinnamon every time she makes a batch of coffee cake topping. How many batches can she make if she has  $\frac{1}{2}$  oz. left in her spice jar?

## Exercise 1

Using the same dividend and divisor, work with a partner to create your own story problem. You may use the same unit, but your situation must be unique. You could try another unit such as ounces, yards, or miles if you prefer.

Tiffany has  $\frac{1}{2}$  yrd of ribbon. For each party decoration, she needs  $\frac{1}{8}$  yrd. How many party decorations can she make?

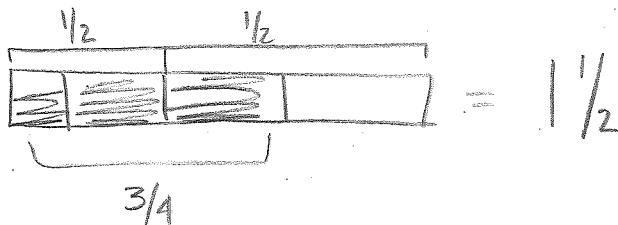
## Example 2

$$\frac{3}{4} \div \frac{1}{2}$$

Step 1: Decide on an interpretation.

Make equiv.  $\frac{1}{2} \times 2 = \frac{2}{4}$

Step 2: Draw a diagram.



$$\begin{array}{r} 2 \overline{) 3} \\ \underline{-2} \\ 1 \end{array} \quad \bigg| \frac{1}{2}$$

Step 3: Find the answer.

$$\frac{3}{4} \div \frac{2}{4}$$

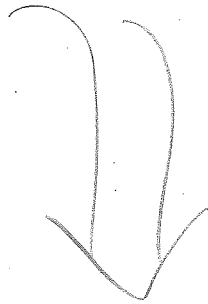
$$\frac{3}{2} = \bigg| \frac{1}{2}$$

$$\frac{3}{4} \cdot \frac{4}{2} = \frac{12}{8} \div 4 = \frac{3}{2} = \bigg| \frac{1}{2}$$

Step 4: Choose a unit. Answers vary...

oz.

Step 5: Set up a situation based on the model.



### Exercise 2

Using the same dividend and divisor, work with a partner to create your own story problem. You may use the same unit, but your situation must be unique. You could try another unit such as cups, yards, or miles if you prefer.

Tia has  $\frac{3}{4}$  oz. of coffee grounds left in her coffee can. She needs  $\frac{1}{2}$  oz. to make 1 cup of coffee. How many cups will that make.