

## Lesson 6: More Division Stories

### Classwork

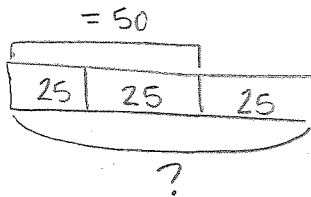
#### Example 1

Divide  $50 \div \frac{2}{3}$ .

Step 1: Decide on an interpretation.

$\frac{2}{3}$  is the # of groups Question: 50 is  $\frac{2}{3}$  group of what size?

Step 2: Draw a model.



$$\frac{50}{2} = 25$$

Step 3: Find the answer.

$$2 \text{ units} = 50$$

$$1 \text{ unit} = 25$$

$$3 \text{ units} = 3 \times 25 = 75$$

Step 4: Choose a unit. (Answers vary)

Dollars \$

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

Adam spent \$50 on a new graphing calculator. This was  $\frac{2}{3}$  of his money. How much money did he start with?

### Exercise 1

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

Alvyn has ridden 50 miles during his bike ride.  $\frac{3}{4}$  is  $\frac{2}{3}$  of the way to finishing. How long is the bike ride?

### Example 2

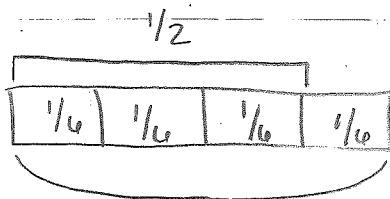
Divide  $\frac{1}{2} \div \frac{3}{4}$ .

Step 1: Decide on an interpretation.

$\frac{1}{2}$  is  $\frac{3}{4}$  of what #?

Step 2: Draw a model.

Denominator is fourths.



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

Step 3: Find the answer.

$$3 \text{ units} = \frac{1}{2}$$

$$1 \text{ unit} = \frac{1}{2} \div 3 = \frac{1}{2} \cdot \frac{1}{3} = \frac{1}{6}$$

$$4 \text{ units} \quad 4 \times \frac{1}{6} = \frac{4}{6}$$

Step 4: Choose a unit. (Answers will vary)

hours

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

After traveling for a  $\frac{1}{2}$  hour, Scott completed  $\frac{3}{4}$  of his commute? How long is his commute?

### Exercise 2

Using the same dividend and divisor, work with a partner to create your own story problem. Try a different unit.

Aiden completed  $\frac{3}{4}$  of his homework in a half hour. How long does it take Aiden to complete all of his homework?