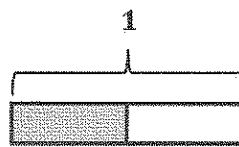


## G5-M4-Lesson 26

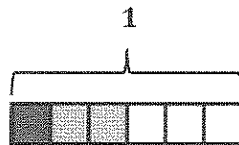
1. Solve and support your answer with a model or tape diagram. Write your quotient in the blank.

$$\frac{1}{2} \div 3 = \frac{1}{6}$$

I can think of this expression as "One half of a pan of brownies is shared equally with 3 people. How much of the pan does each person get?"



I can draw a pan of brownies and shade the  $\frac{1}{2}$  of a pan that will be shared.



$$\begin{aligned} 1 \text{ half} \div 3 \\ = 3 \text{ sixths} \div 3 \\ = 1 \text{ sixth} \end{aligned}$$

In order to share the brownies with 3 people equally, I partition it into 3 equal parts. I do the same for the other half of the pan so that I can see equal units. Each person will get  $\frac{1}{6}$  of the pan of brownies.

2. Divide. Then, multiply to check.

$$\frac{1}{4} \div 5$$

$$\frac{5}{20} \div 5 = 5 \text{ twentieths} \div 5 = 1 \text{ twentieth} = \frac{1}{20}$$

I know that  $5 \div 5$  is equal to 1.

Therefore,  $5 \text{ twentieths} \div 5 = 1 \text{ twentieth}$ , or  $\frac{1}{20}$ .

I can visualize a tape diagram. In my mind, I can see 1 fourth being partitioned into 5 equal units. Now, instead of seeing fourths, the model is showing twentieths.

$$\text{Check: } \frac{1}{20} \times 5 = \frac{5}{20} = \frac{1}{4}$$

I check my answer by multiplying the quotient,  $\frac{1}{20}$ , and the divisor, 5, to get  $\frac{1}{4}$ .

Since Tim read  $\frac{4}{5}$  of the book, it means he has  $\frac{1}{5}$  left to read.

$$1 - \frac{4}{5} = \frac{1}{5}$$

3. Tim has read  $\frac{4}{5}$  of his book. He finishes the book by reading the same amount each night for 3 nights.

- a. What fraction of the book does he read on each of the 3 nights?

$$\frac{1}{5} \div 3 = \frac{3}{15} \div 3 = \frac{1}{15}$$

I can rename  $\frac{1}{5}$  as  $\frac{3}{15}$ . Then, I divide.  
 $3 \text{ fifteenths} \div 3 = 1 \text{ fifteenth, or } \frac{1}{15}$ .

He reads  $\frac{1}{15}$  of the book on each of the 3 nights.

- b. If he reads 6 pages on each of the 3 nights, how long is the book?

1 unit = 6 pages

15 units =  $15 \times 6 \text{ pages} = 90 \text{ pages}$

Tim reads  $\frac{1}{15}$ , or 6 pages, each night.  
So  $\frac{1}{15}$  or 1 unit is equal to 6 pages.

The book has 90 pages.

The whole book is equal to  $\frac{15}{15}$ , or 15 units.  
So I multiply 15 times 6.