Lesson 1: Interpreting Division of a Fraction by a Whole Number—Visual Models

Classwork

Opening Exercise

Draw a model of the fraction.

Describe what the fraction means.

Example 1

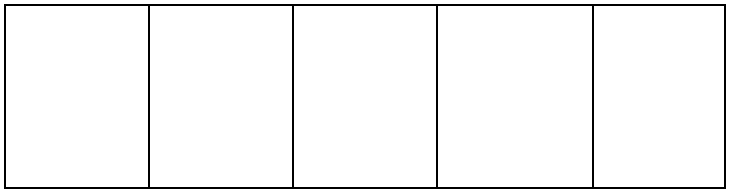
Maria has $\frac{3}{4}$ lb. of trail mix. She needs to share it equally among 6 friends. How much will each friend be given? What is this question asking us to do?

How can this question be modeled?

Example 2

Let's look at a slightly different example. Imagine that you have $\frac{2}{5}$ of a cup of frosting to share equally among three desserts. How would we write this as a division question?

We can start by drawing a model of two-fifths.



How can we show that we are dividing two-fifths into three equal parts?

What does this part represent?

Exercises 1–5

For each question below, rewrite the problem as a multiplication question. Then, model the answer.

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

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

3. $\frac{1}{5} \div 4 =$

4. $\frac{3}{5} \div 4 =$

5. $\frac{2}{3} \div 4 =$

Problem Set

Rewrite each problem as a multiplication question. Model your answer.

1. $\frac{2}{5} \div 5$

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