Lesson 3: Interpreting and Computing Division of a Fraction by a Fraction—More Models

Classwork

Opening Exercise

Draw a model to represent $12÷3$.

How could we reword this question?

Example 1

$$\frac{8}{9} ÷ \frac{2}{9}$$

Draw a model to show the division problem.

Example 2

$$\frac{9}{12} ÷ \frac{3}{12}$$

Be sure to draw a model to support your answer.

Example 3

$$\frac{7}{9} ÷ \frac{3}{9}$$

Be sure to create a model to support your answer.

Exercises 1–6

For the following exercises, rewrite the division problem. Then, be sure to draw a model to support your answer.

1. How many fourths are in three fourths?

Draw a model to support your answer.

How are Example 2 and Exercise 1 similar?

How are the divisors and dividends related?

What conclusions can you draw from these observations?

1. $\frac{4}{5}÷\frac{2}{5}$
2. $\frac{9}{4}÷\frac{3}{4}$
3. $\frac{7}{8}÷\frac{2}{8}$
4. $\frac{13}{10}÷\frac{2}{10}$
5. $\frac{11}{9}÷\frac{3}{9}$

Lesson Summary

When dividing a fraction by a fraction with the same denominator, we can use the general rule $\frac{a}{c}÷\frac{b}{c}=\frac{a}{b}$.

Problem Set

For the following exercises, rewrite the division problem in words. Then, be sure to draw a model to support your answer.

1. $\frac{15}{4}÷\frac{3}{4}$
2. $\frac{8}{5}÷\frac{3}{5}$