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

Classwork

Opening Exercise

Draw a model to represent $12 \div 3$.

How could we reword this question?

Example 1

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

Draw a model to show the division problem.

Example 2

$$\frac{9}{12} \div \frac{3}{12}$$

Be sure to draw a model to support your answer.

Example 3

$$\frac{7}{9} \div \frac{3}{9}$$

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?

2. $\dfrac{4}{5} \div \dfrac{2}{5}$

3. $\dfrac{9}{4} \div \dfrac{3}{4}$

4. $\dfrac{7}{8} \div \dfrac{2}{8}$

5. $\dfrac{13}{10} \div \dfrac{2}{10}$

6. $\dfrac{11}{9} \div \dfrac{3}{9}$

COMMON CORE | **Lesson 3:** Interpreting and Computing Division of a Fraction by a Fraction—More Models
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> **Lesson Summary**
>
> When dividing a fraction by a fraction with the same denominator, we can use the general rule $\frac{a}{c} \div \frac{b}{c} = \frac{a}{b}$.

Problem Set

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

1. $\dfrac{15}{4} \div \dfrac{3}{4}$

2. $\dfrac{8}{5} \div \dfrac{3}{5}$