Lesson 4: Interpreting and Computing Division of a Fraction by a Fraction—More Models

Classwork

Opening Exercise

Write at least three equivalent fractions for each fraction below. Be sure to show how the two fractions are related.

a. $\frac{2}{3}$

b. $\frac{10}{12}$

Example 1

Molly purchased $\frac{11}{8}$ cups of strawberries. If she eats $\frac{2}{8}$ cups per serving, how many servings does Molly have?

Use a model to prove your answer.

Example 2

Now imagine that Xavier, Molly's friend, purchased $\frac{11}{8}$ cups of strawberries. If he eats $\frac{3}{4}$ cups of strawberries per serving, how many servings will he have? Use a model to prove your answer.

Example 3

Find the quotient: $\frac{3}{4} \div \frac{2}{3}$. Use a model to show your answer.

Exercises 1–5

A model should be included in your solution.

1. $\frac{6}{2} \div \frac{3}{4}$

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

3. $\frac{7}{8} \div \frac{1}{2}$

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

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

Problem Set

Draw a model to support your answer to the division questions.

1. $\frac{8}{9} \div \frac{4}{9}$

2. $\frac{9}{10} \div \frac{4}{10}$

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

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