Lesson 7: The Relationship Between Visual Fraction Models and Equations

Classwork

Example 2

Model the following using a measurement interpretation.

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

Example 3

Solve with the invert and multiply method.

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

Lesson Summary

Connecting models of fraction division to multiplication through the use of reciprocals helps in understanding the *invert and multiply* rule. That is, given two fractions $\frac{a}{b}$ and $\frac{c}{d}$, we have the following:

$$\frac{a}{b} \div \frac{c}{d} = \frac{a}{b} \times \frac{d}{c}.$$

Problem Set

Invert and multiply to divide.

1.

a. $\frac{2}{3} \div \frac{1}{4}$ b. $\frac{2}{3} \div 4$ c. $4 \div \frac{2}{3}$

2.

a. $\frac{1}{3} \div \frac{1}{4}$ b. $\frac{1}{8} \div \frac{3}{4}$ c. $\frac{9}{4} \div \frac{6}{5}$

3.

a. $\frac{2}{3} \div \frac{3}{4}$ b. $\frac{3}{5} \div \frac{3}{2}$ c. $\frac{22}{4} \div \frac{2}{5}$

4. Summer used $\frac{2}{5}$ of her ground beef to make burgers. If she used $\frac{3}{4}$ pounds of beef, how much beef did she have at first?