

**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?
5. Alistair has 5 half-pound chocolate bars. It takes  $1\frac{1}{2}$  pounds of chocolate, broken into chunks, to make a batch of cookies. How many batches can Alistair make with the chocolate he has on hand?
6. Draw a model that shows  $\frac{2}{5} \div \frac{1}{3}$ . Find the answer as well.
7. Draw a model that shows  $\frac{3}{4} \div \frac{1}{2}$ . Find the answer as well.