

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.