Number

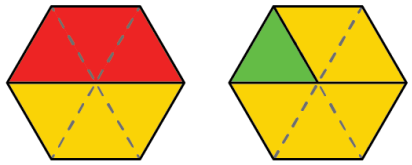
Activity 17 Assessment

Dividing Fractions and Mixed Numbers

Dividing Fractions and Mixed Numbers

Models division of a fraction by a whole number

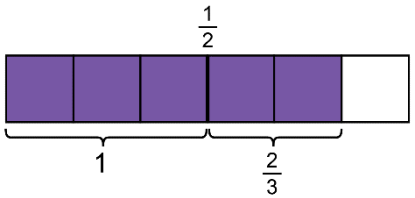
$\frac{1}{2} \div 3$



I used pattern blocks. A trapezoid is $\frac{1}{2}$. A trapezoid is made up of 3 triangles. So, $\frac{1}{2} \div 3$ is $\frac{1}{6}$.

Models division of fractions and mixed numbers

$\frac{5}{6} \div \frac{1}{2}$



I divided a rectangle in sixths and shaded 5 parts.
Then, I drew a line to cut the same rectangle in half. $\frac{1}{2}$ goes into $\frac{5}{6}$ once and then $\frac{2}{3}$ more.

So, $\frac{5}{6} \div \frac{1}{2} = 1\frac{2}{3}$.

Applies a rule for dividing fractions, including mixed numbers

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

I wrote the mixed numbers as improper fractions. Then, I wrote the fractions with a common denominator and divided the numerators.

$2\frac{3}{4} \div 1\frac{1}{2} = \frac{11}{4} \div \frac{3}{2}$

$= \frac{11}{4} \div \frac{6}{4}$

$= \frac{11}{6}$

$= 1\frac{5}{6}$

Solves a problem involving the division of fractions and mixed numbers

A painter used $2\frac{3}{4}$ cans of paint for the first room and $1\frac{1}{2}$ cans for the second room. How many more times as much paint did the first room use than the second?

$2\frac{3}{4} \div 1\frac{1}{2} = \frac{11}{4} \div \frac{3}{2}$

$= \frac{11}{4} \times \frac{2}{3}$

$= \frac{22}{12}$

$= 1\frac{10}{12}$

$= 1\frac{5}{6}$

The first room used $1\frac{5}{6}$ times as much paint as the second room.

Observations/Documentation