



# Use Common Denominators to Compare

Let's compare fractions by writing equivalent fractions with the same denominator.

Warm-up

## What Do You Know about 15 and 30?

What do you know about 15 and 30?

## Activity 1

### Tricky Fractions?

1. In each pair of fractions, which fraction is greater? Explain or show your reasoning.

a.  $\frac{4}{3}$  or  $\frac{13}{12}$

b.  $\frac{4}{3}$  or  $\frac{7}{5}$

2. Han says he can compare  $\frac{4}{3}$  and  $\frac{13}{12}$  by writing an equivalent fraction for  $\frac{4}{3}$ . He says he can't use that strategy to compare  $\frac{4}{3}$  and  $\frac{7}{5}$ . Do you agree? Explain your reasoning.
- 
- 

3. Priya and Lin show different ways to compare  $\frac{4}{3}$  and  $\frac{7}{5}$ . Make sense of what they did. How are their strategies alike? How are they different?

Priya

$$\frac{4 \times 5}{3 \times 5} = \frac{20}{15}$$

$$\frac{7 \times 3}{5 \times 3} = \frac{21}{15}$$

Lin

$$\frac{4 \times 10}{3 \times 10} = \frac{40}{30}$$

$$\frac{7 \times 6}{5 \times 6} = \frac{42}{30}$$

$\frac{21}{15}$  is greater than  $\frac{20}{15}$ ,  
so  $\frac{7}{5}$  is greater than  $\frac{4}{3}$ .

$\frac{42}{30}$  is greater than  $\frac{40}{30}$ ,  
so  $\frac{7}{5}$  is greater than  $\frac{4}{3}$ .

## Activity 2

### Use a Common Denominator, or Not

1. For each pair of fractions, write a pair of equivalent fractions with a common denominator.

a.  $\frac{5}{6}$  and  $\frac{3}{4}$

b.  $\frac{2}{3}$  and  $\frac{5}{8}$

c.  $\frac{2}{6}$  and  $\frac{4}{10}$

d.  $\frac{7}{4}$  and  $\frac{17}{10}$

2. For each pair of fractions, decide which fraction is greater. Be prepared to explain your reasoning.

a.  $\frac{5}{12}$  or  $\frac{3}{8}$

b.  $\frac{13}{5}$  or  $\frac{11}{6}$

c.  $\frac{71}{10}$  or  $\frac{34}{5}$

d.  $\frac{7}{12}$  or  $\frac{49}{100}$