## Lesson 15: 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?

### 15.1: Tricky Fractions?

1. In each pair of fractions, which fraction is greater? Explain or show your reasoning.
	1. $\frac{4}{3}$ or $\frac{13}{12}$
	2. $\frac{4}{3}$ 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 showed different ways for comparing $\frac{4}{3}$ and $\frac{7}{5}$. Make sense of what they did. How are their strategies alike? How are they different?
* Priya: $\frac{4 × 5}{3 × 5}=\frac{20}{15} \frac{7 × 3}{5 × 3}=\frac{21}{15}$
* ​​$\frac{21}{15}$ is greater than $\frac{20}{15}$, so ​​​​​$\frac{7}{5}$ is greater than $\frac{4}{3}$.
* Lin: $\frac{4 × 10}{3 × 10}=\frac{40}{30} \frac{7 × 6}{5 × 6}=\frac{42}{30}$
* $\frac{42}{30}$ is greater than $\frac{40}{30}$, so $\frac{7}{5}$ is greater than $\frac{4}{3}$.

### 15.2: Use a Common Denominator, or Not

1. For each pair of fractions, write a pair of equivalent fractions with a common denominator.
	1. $\frac{5}{6}$ and $\frac{3}{4}$
	2. $\frac{2}{3}$ and $\frac{5}{8}$
	3. $\frac{2}{6}$ and $\frac{4}{10}$
	4. $\frac{7}{4}$ and $\frac{17}{10}$
2. For each pair of fractions, decide which fraction is greater. Be prepared to explain your reasoning.
	1. $\frac{5}{12}$ or $\frac{3}{8}$
	2. $\frac{13}{5}$ or $\frac{11}{6}$
	3. $\frac{71}{10}$ or $\frac{34}{5}$
	4. $\frac{7}{12}$ or $\frac{49}{100}$



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