16. Compare Fractions with Like Denominators and Like Numerators

A. Visual learning

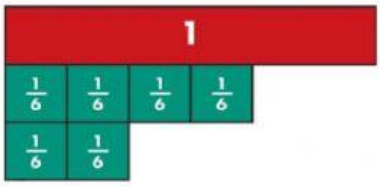
How can you compare fractions with like denominators?

Compare $\frac{4}{6}$ and $\frac{2}{6}$

$\frac{4}{6}$ ← unline numerators → $\frac{2}{6}$

$\frac{4}{6}$ ← like denominators → $\frac{2}{6}$

Use fraction strips



Use four $\frac{1}{6}$ strips to show $\frac{4}{6}$.

Use two $\frac{1}{6}$ strips to show $\frac{2}{6}$.

More $\frac{1}{6}$ strips are used to show $\frac{4}{6}$. So, $\frac{4}{6} > \frac{2}{6}$.

Rule

If two fractions have like denominators, the fraction with the **greater numerator** is the **greater fraction**.

4 > 2

So, $\frac{4}{6} > \frac{2}{6}$

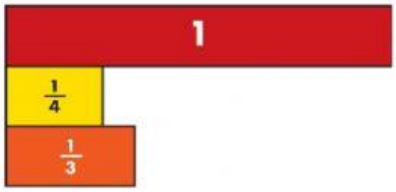
How can you compare fractions with like numerators?

Compare $\frac{1}{3}$ and $\frac{1}{4}$

$\frac{1}{3}$ ← like numerators → $\frac{1}{4}$

$\frac{1}{3}$ ← unlike denominators → $\frac{1}{4}$

Use fraction strips

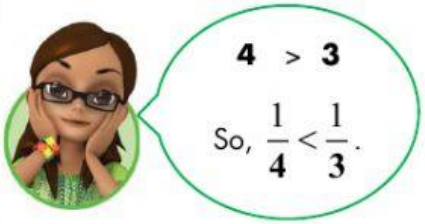


The $\frac{1}{4}$ strip is shorter than the $\frac{1}{3}$ strip.

So, $\frac{1}{4} < \frac{1}{3}$.

Rule

If two fractions have like numerators, the fraction with the **greater denominator** is the **smaller fraction**.



B. Vocabulary

like numerator: _____ like denominator: _____

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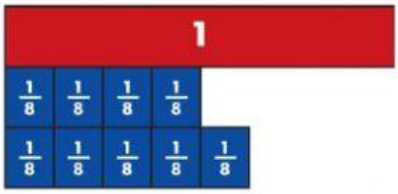
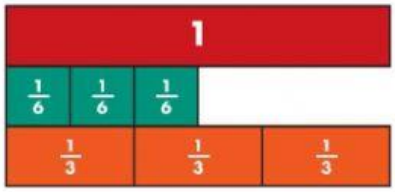
C. Independent practice

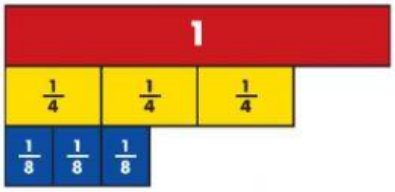
In **1 – 3,** *compare. Write <, >, or = in the blank. Use fraction strips to help.*



1. $\frac{4}{8} \bigcirc \frac{5}{8}$



2. $\frac{3}{6} \bigcirc \frac{3}{3}$



3. $\frac{3}{4} \bigcirc \frac{3}{8}$

In **4 – 9,** *write >, < or = for each.*

4. $\frac{2}{6} \bigcirc \frac{5}{6}$

5. $\frac{4}{4} \bigcirc \frac{4}{7}$

6. $\frac{4}{8} \bigcirc \frac{4}{8}$

7. $\frac{1}{3} \bigcirc \frac{1}{6}$

8. $\frac{7}{8} \bigcirc \frac{3}{8}$

9. $\frac{2}{5} \bigcirc \frac{2}{9}$

10. These fractions refer to the same whole. Which of these comparisons are correct?

Choose all that apply.

- ☐ $\frac{5}{6} < \frac{5}{8}$
- ☐ $\frac{2}{4} > \frac{2}{3}$
- ☐ $\frac{1}{2} > \frac{1}{4}$
- ☐ $\frac{5}{6} = \frac{5}{6}$
- ☐ $\frac{3}{4} > \frac{3}{6}$

11. Which is longer, $\frac{1}{4}$ of a meter (m) or $\frac{1}{4}$ of a kilometer (km)? Explain.

LIVEWORKSHEETS