Unit 5, Lesson 16

Compare Fractions with the Same Numerator

Let's compare 2 fractions with the same numerator.

Warm-up

True or False: Unit Fractions

Decide whether each statement is true or false. Be prepared to explain your reasoning.

- $\frac{1}{2} > \frac{1}{4}$

- $\frac{1}{4} > \frac{1}{3}$

- $\frac{1}{6} > \frac{1}{8}$

Activity 1

Five Parts of Something

1. Priya says that $\frac{5}{6}$ is greater than $\frac{5}{8}$.

   Tyler says that $\frac{5}{8}$ is greater than $\frac{5}{6}$.

   Who do you agree with? Show your thinking, using diagrams or number lines.

2. For each pair of fractions, which fraction do you think is greater?

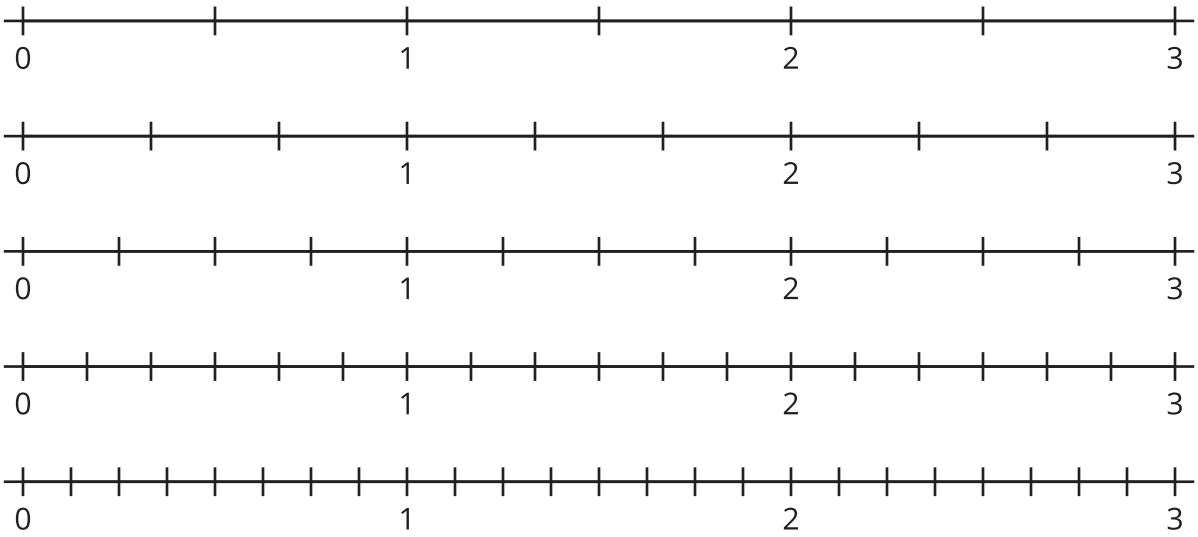
   a. $\frac{5}{3}$ or $\frac{5}{4}$

   b. $\frac{5}{8}$ or $\frac{5}{2}$

   c. $\frac{5}{6}$ or $\frac{5}{4}$



3. Locate and label each fraction on a number line: $\frac{5}{2}$, $\frac{5}{3}$, $\frac{5}{4}$, $\frac{5}{6}$, $\frac{5}{8}$.



What do you notice about the points? Make 1 or 2 observations.

Activity 2

Fractions with the Same Numerator

1. For each pair of fractions, circle the fraction that is greater. Explain or show your reasoning.

   a. $\frac{1}{4}$ and $\frac{1}{3}$

   b. $\frac{3}{4}$ and $\frac{3}{8}$

   c. $\frac{5}{3}$ and $\frac{5}{6}$

   d. $\frac{9}{8}$ and $\frac{9}{6}$

2. Use the symbol > or < to make each statement true. Be prepared to explain your reasoning.

   a. $\frac{2}{2}$ _____ $\frac{2}{6}$

   b. $\frac{4}{3}$ _____ $\frac{4}{8}$

   c. $\frac{8}{8}$ _____ $\frac{8}{4}$

   d. $\frac{5}{4}$ _____ $\frac{5}{3}$

3. Write a number for the unknown denominator of the fraction to make each statement true. Be prepared to explain your reasoning.

   a. $\frac{1}{3} < \frac{1}{\quad}$

   b. $\frac{6}{4} > \frac{6}{\quad}$

   c. $\frac{4}{4} < \frac{4}{\quad}$

   d. $\frac{2}{6} < \frac{2}{\quad}$