

Lesson 16: Compare Fractions with the Same Numerator

- Let's compare two 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.

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

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

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

16.1: 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?

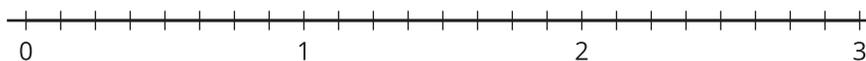
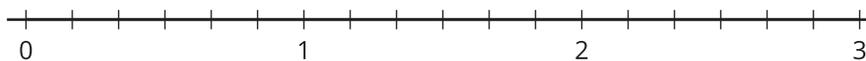
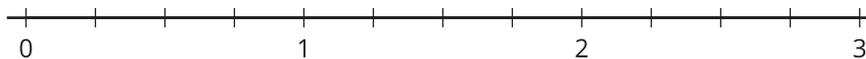
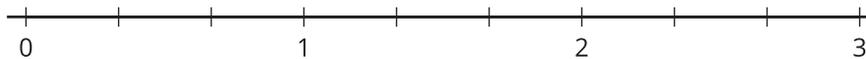
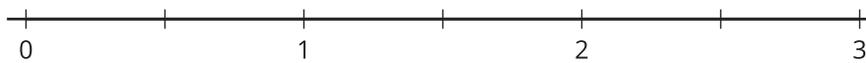
a. $\frac{5}{3}$ or $\frac{5}{4}$

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 1-2 observations.

16.2: 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 symbols $>$ 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 in the missing denominator of the fraction to make each statement true. Be prepared to explain your reasoning.

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

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

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

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