Illustrative Mathematics

Grade 3 Unit 5
Lesson 16

Unit 5 Lesson 16: Compare Fractions with the Same Numerator

WU True or False: Unit Fractions (Warm up)

Student Task Statement

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

- $\frac{1}{2} > \frac{1}{4}$
- $\frac{1}{4} > \frac{1}{3}$
- $\frac{1}{6} > \frac{1}{8}$

1 Five Parts of Something

Student Task Statement

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

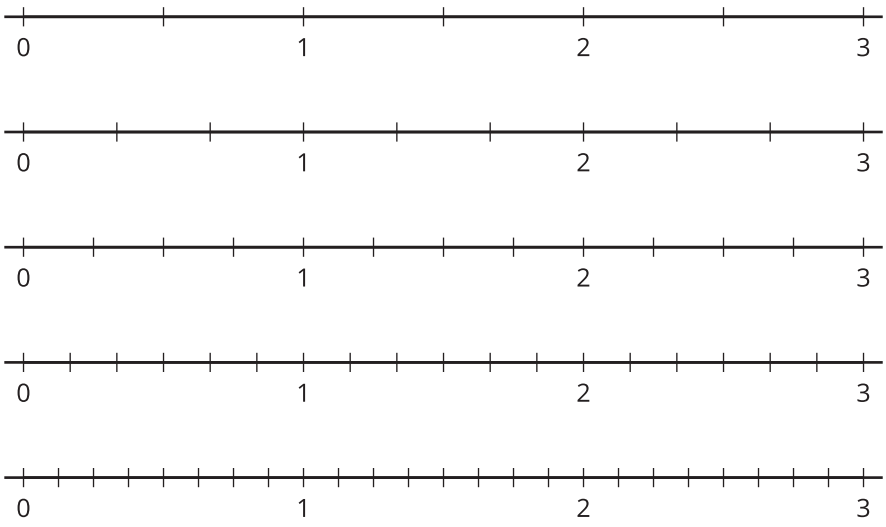
   Tyler says that $\frac{5}{8}$ is greater than $\frac{5}{6}$.

   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.

2 Fractions with the Same Numerator

Student Task Statement

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. $\frac{1}{3} < \frac{1}{\_\_\_}$
   b. $\frac{6}{4} > \frac{6}{\_\_\_}$
   c. $\frac{4}{4} < \frac{4}{\_\_\_}$
   d. $\frac{2}{6} < \frac{2}{\_\_\_}$