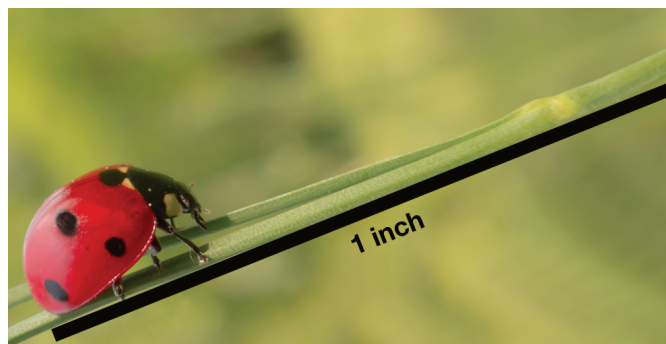# Lesson 17: Compare Fractions

- Let's compare more fractions in different situations.

Warm-up: Estimation Exploration: Ladybug Length

What is the length of this ladybug?

Record an estimate that is:

too low	about right	too high

17.1: Comparison Problems

For each problem:

- Answer the question and explain or show your reasoning.
- Represent your answer with a statement that uses the symbols >, <, or =.

1. A beetle crawled $\frac{2}{8}$ of the length of a log. A caterpillar crawled $\frac{2}{3}$ of the length of the same log. Which insect crawled farther?

2. A grasshopper is 4 centimeters long. A caterpillar is $\frac{12}{3}$ centimeters long. Which insect is longer?

4 centimeters

3. A ladybug crawled $\frac{3}{8}$ the length of a branch. An ant crawled $\frac{5}{8}$ the length of the same branch. Which insect crawled farther?

4. A grasshopper jumped $\frac{5}{8}$ the width of the sidewalk. A frog jumped $\frac{5}{6}$ the width of the same sidewalk. Which jumped a longer distance?

17.2: What Fraction Makes Sense?

1. Oh, no! Some juice spilled on Noah's fractions. Help him figure out what was written before the juice was spilled.

   Find as many numbers as you can to make each statement true. Explain or show your reasoning.

   a.

   $$\frac{2}{8} < \frac{\text{✳}}{8}$$

   b.

   $$\frac{3}{6} = \text{✳}$$

   c.

   $$\frac{4}{3} > \frac{4}{\text{✳}}$$

2. For each fraction, find a fraction that is less, one that is greater, and one that is equivalent. Then, write a statement that uses the symbols >, <, or = to record each comparison.

   a. Less than $\frac{4}{6}$: _____   Statement:

   More than $\frac{4}{6}$: _____   Statement:

   Equivalent to $\frac{4}{6}$: _____   Statement:

   b. Less than $\frac{3}{4}$: _____   Statement:

   More than $\frac{3}{4}$: _____   Statement:

   Equivalent to $\frac{3}{4}$: _____   Statement:

17.3: Ultimate Locate and Label

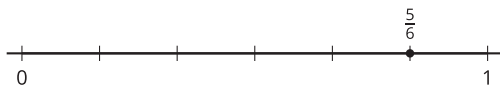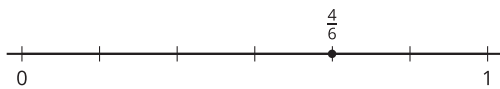Locate and label each fraction on the number line. Be prepared to share your reasoning.

$$\frac{1}{2}, \frac{3}{8}, \frac{13}{8}, \frac{2}{4}, \frac{3}{4}, \frac{9}{8}, \frac{5}{4}, \frac{12}{6}, \frac{5}{2}, \frac{9}{3}, \frac{20}{8}$$
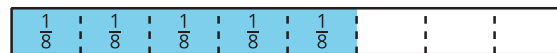

Section Summary

Section Summary
In this section, we compared fractions with the same numerator or denominator and used the symbols >, =, or < to record our results. We used diagrams and number lines to represent our thinking.

$$\frac{4}{6} < \frac{5}{6}$$

$$\frac{5}{6} > \frac{5}{8}$$