Unit 5, Lesson 17

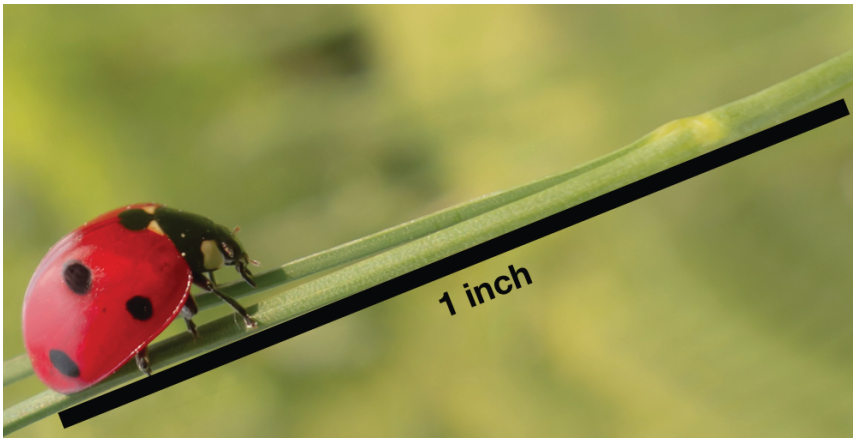
# Compare Fractions

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 |
|---|---|---|
| | | |

Activity 1

## Comparison Problems

For each problem:

- Answer the question and explain or show your reasoning.
- Represent your answer with a statement that uses the symbol >, <, 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 $\frac{3}{8}$ of the length of a branch. An ant crawled $\frac{5}{8}$ of the length of the same branch. Which insect crawled farther?

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

Activity 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. $\frac{2}{8} < \frac{\blacksquare}{8}$

   b. $\frac{3}{6} = \blacksquare$

   c. $\frac{4}{3} > \frac{4}{\blacksquare}$

2. Find a fraction that is greater than, a fraction that is less than, and a fraction that is equivalent to each fraction. Then write a statement that uses the symbol >, <, or = to record each comparison.

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

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

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

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

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

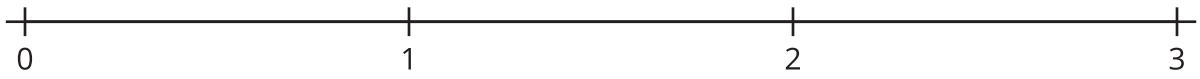
      Equivalent to $\frac{3}{4}$: _____ Statement:

Activity 3

## Ultimate Locate and Label

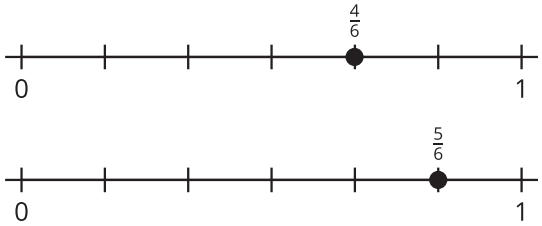
Locate and label each fraction on the number line. Be prepared to share your reasoning.

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

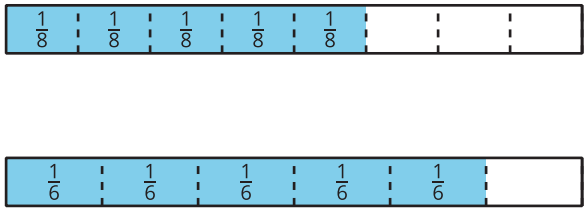



### Section D Summary

We compared fractions with the same numerator or the same denominator, and used the symbol >, <, or = to record the comparison. We used diagrams and number lines to represent our thinking.




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




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