Unit 2, Lesson 6

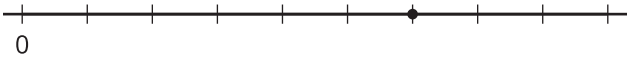
Relate Fractions to Benchmarks

Let's compare the size of fractions to $\frac{1}{2}$ and to 1.

Warm-up

Notice and Wonder: A Point on a Number Line

What do you notice? What do you wonder?



Activity 1

Greater than or Less than 1?

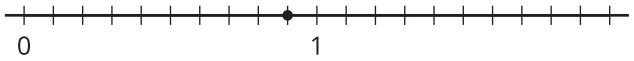
For each number line:

a. Name a fraction that the point represents.

b. Is that fraction greater than or less than 1?

c. How far is it from 1?

1.

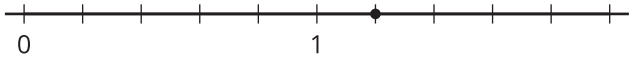


a.

b.

c.

2.

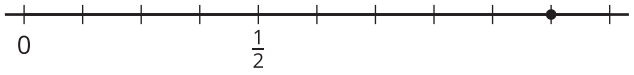


a.

b.

c.

3.



a.

b.

c.

4.

a.

b.

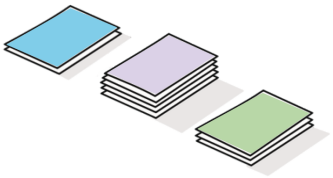
c.

Activity 2

Card Sort: Where Do They Belong?

Your teacher will give you a set of cards that show fractions.

1. Sort the cards into 3 groups: less than $\frac{1}{2}$, equal to $\frac{1}{2}$, and greater than $\frac{1}{2}$. Be ready to explain your reasoning.



Discuss your sorting with another group. Then record the fractions in the table.

less than $\frac{1}{2}$	equal to $\frac{1}{2}$	greater than $\frac{1}{2}$

2. Discuss your sorting with the class. Then complete the sentences.
   - A fraction is less than $\frac{1}{2}$ when . . .

     _____
   - A fraction is greater than $\frac{1}{2}$ when . . .

     _____
   - A fraction is between $\frac{1}{2}$ and 1 when . . .

     _____

Activity 3

Greater than or Less than $\frac{1}{2}$?

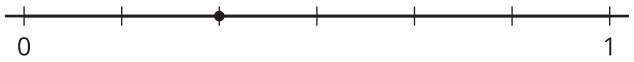
For each number line:

a. Name a fraction that the point represents.

b. Is that fraction greater than or less than $\frac{1}{2}$?

c. What fraction describes how far the point is from $\frac{1}{2}$?

1.



a.

b.

c.

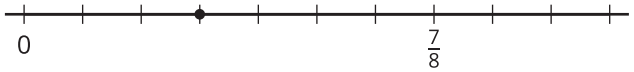
2.

a.

b.

c.

3.



a.

b.

c.

4.

a.

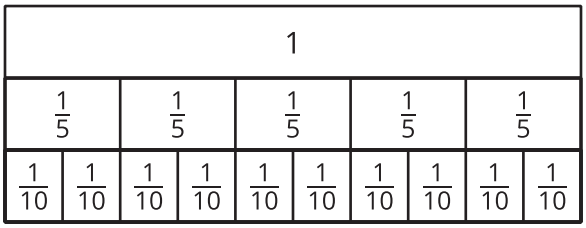
b.

c.

Section A Summary

We used fraction strips to represent fractions with denominators of 2, 3, 4, 5, 6, 8, 10, and 12.

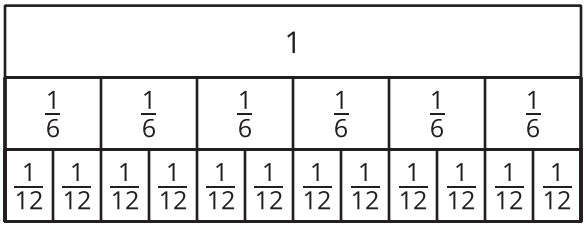
Fraction strips helped us reason about relationships between fractions.



Example:

- One whole split into 5 equal parts makes 5 fifths.
- Each fifth split into 2 equal parts makes 10 equal parts, or 10 tenths.
- When the denominator is larger, there are more parts in a whole.

Fraction strips also helped us reason about the sizes of fractions.



Same denominator: The size of the parts is the same. So, the fraction with more parts is greater.

Example: $\frac{5}{6}$ is greater than $\frac{2}{6}$.

Same numerator: The number of parts is the same. So, the fraction with larger parts is greater.

Example: $\frac{5}{6}$ is greater than $\frac{5}{12}$.

We used what we learned about fraction strips to partition number lines and represent fractions.