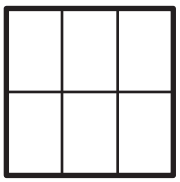
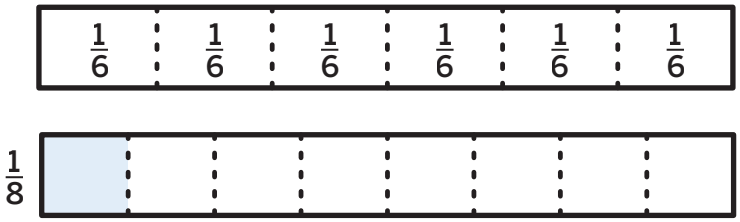
In this sub-unit . . .

- We **partitioned** models and fraction strips into halves, thirds, fourths, sixths, and eighths. These equal parts of a whole can be represented with a number called a fraction.

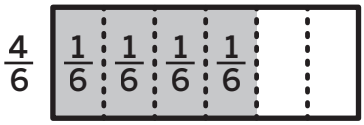


6 equal parts
6 sixths in the whole
Each part is one sixth or $\frac{1}{6}$.

- We discovered that a **unit fraction** describes 1 equal part of a whole, so each equal part can be named with a unit fraction.



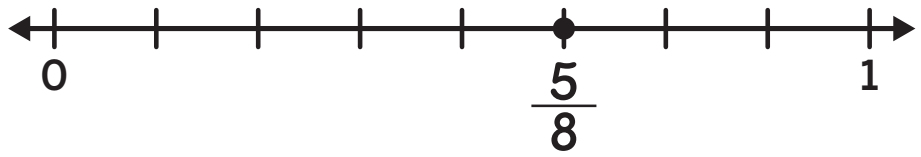
- We composed **non-unit fractions** from unit fractions. Non-unit fractions can describe equal parts that are less than 1 whole and equal to 1 whole.



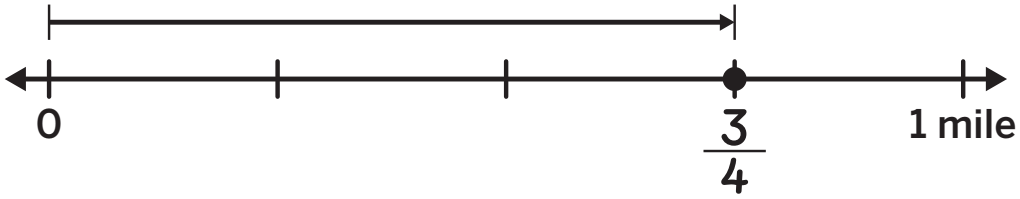
Math tip: A fraction's **denominator** represents the number of equal parts in a whole. A fraction's **numerator** represents the number of equal parts being described.

In this sub-unit . . .

- We represented unit fractions and non-unit fractions on the number line by partitioning the unit segment into the number of parts indicated by the denominator.

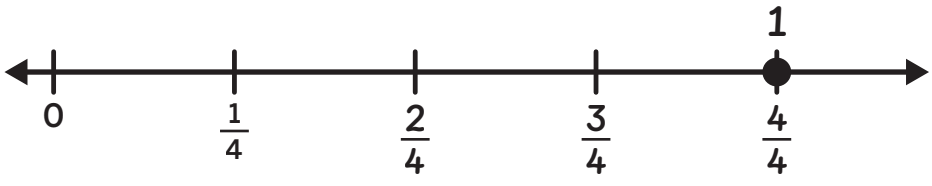


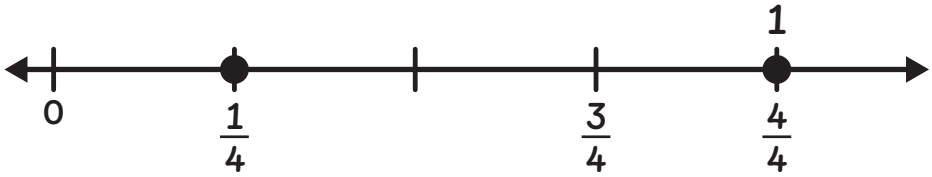
- We labeled fractions as a distance from 0 on the number line.



Math tip: Just like with whole numbers, the location of a fraction on the number line represents the distance from 0 to the fraction.

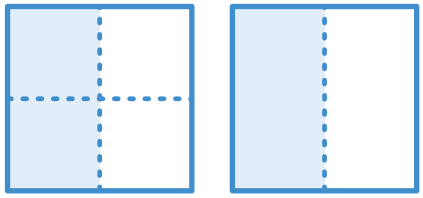
- We located 1 on the number line when given a unit fraction, and we located other fractions when given non-unit fractions.



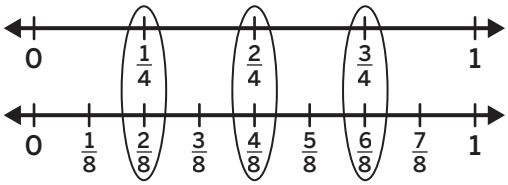


In this sub-unit . . .

- We discovered that 2 fractions that represent the same value are called **equivalent fractions**.



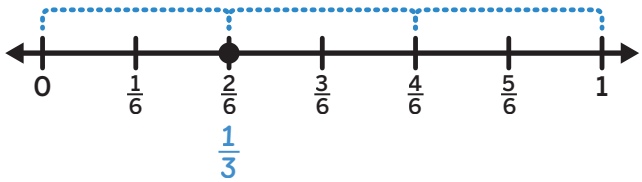
- Fractions are equivalent if they represent the same area of the same-sized whole, or if they are located at the same place on the number line.



Math tip: Just like you can use the equal sign to show that 2 expressions are equal, you can use an equal sign to show that 2 fractions are equivalent.

- We determined equivalent fractions by further partitioning or grouping equal parts on a fraction diagram or number line.

$\frac{3}{4}$ and $\frac{6}{8}$ are equivalent.

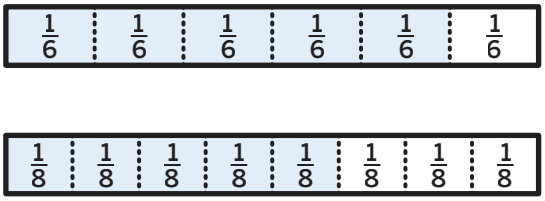


$\frac{2}{6}$ and $\frac{1}{3}$ are equivalent.

Sub-Unit 4 | Summary

In this sub-unit . . .

- We reasoned about the size of each equal part to compare unit fractions and other fractions with the *same numerator*. We used the < and > symbols to record comparisons.

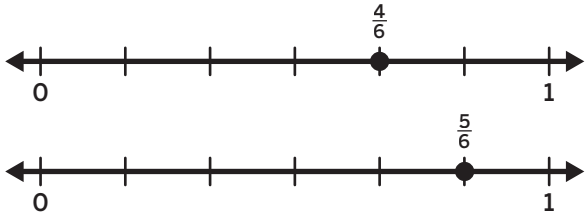


$\frac{5}{6} > \frac{5}{8}$

5 sixths is greater than 5 eighths because sixths are bigger than eighths.

Math tip: The greater the denominator, the smaller the equal parts.

- We reasoned about the number of same-sized parts to compare fractions with the *same denominator*.



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

Both fractions represent the same-sized parts. 4 is less than 5, so 4 sixths is less than 5 sixths.

Math tip: The greater the numerator, the more equal parts there are.