

Math - Fractions

Learning Goal:

By the end of this lesson I should be able to draw a picture model and write a number model to express a fraction term.


A "fraction" is a ratio of **part** : **total**.


It can be used to represent a value that is not a complete "whole" number.

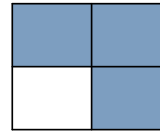
A "fraction" gives us a sense of how much of the whole unit we have present.

Number Model

Picture Model

We have 3 parts.  $\frac{3}{4}$

The whole unit has 4  parts in total.



"three fourths, or three quarters"

Three pieces are blue out of four possible pieces.

The "*th*" at the end helps us identify we are using parts of a whole.

Write the fractions for the following:

Parts

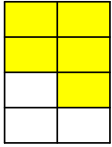
(coloured)

Total

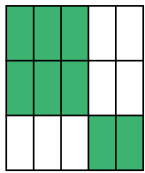
(coloured and not coloured)

Fraction

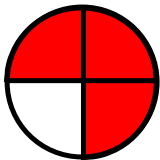
Name



five - eighths



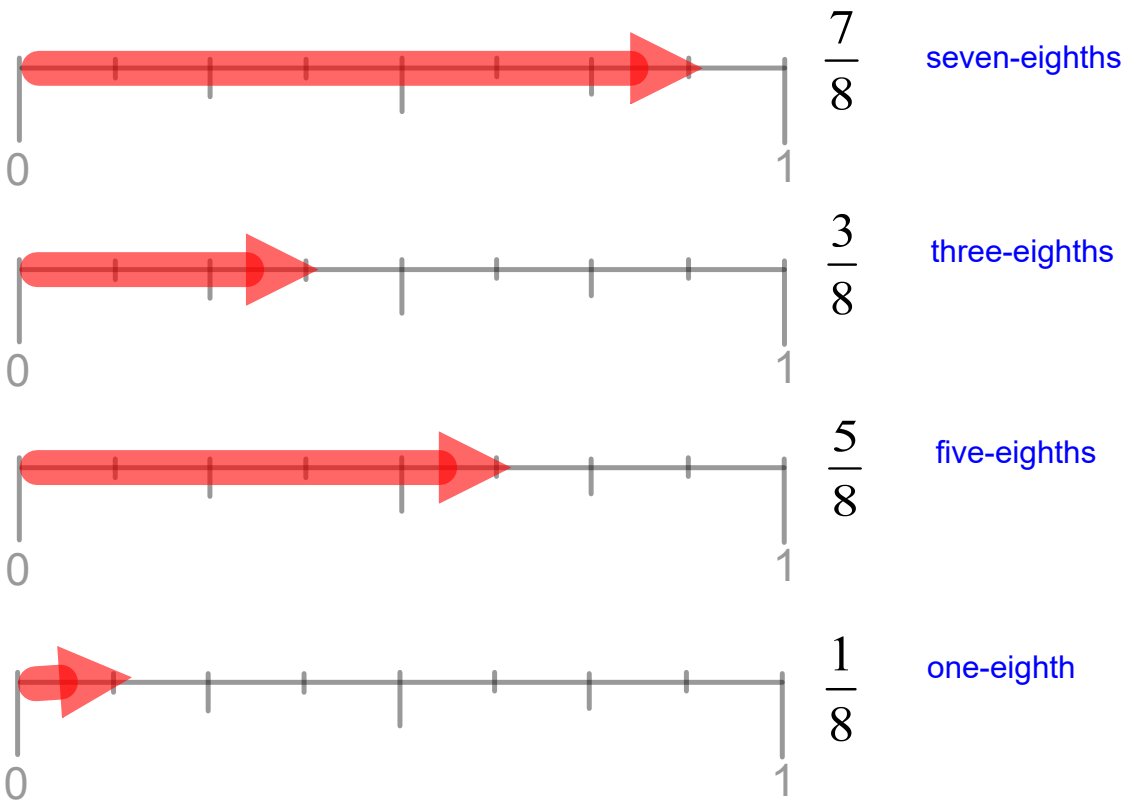
eight - fifteenths



three - fourths or
three - quarters

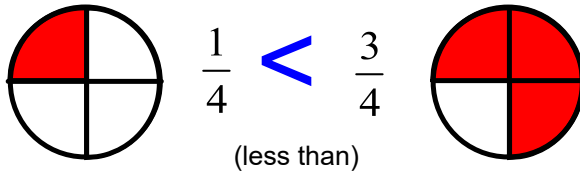
Fractions on a Number Line

8 parts make up the whole unit

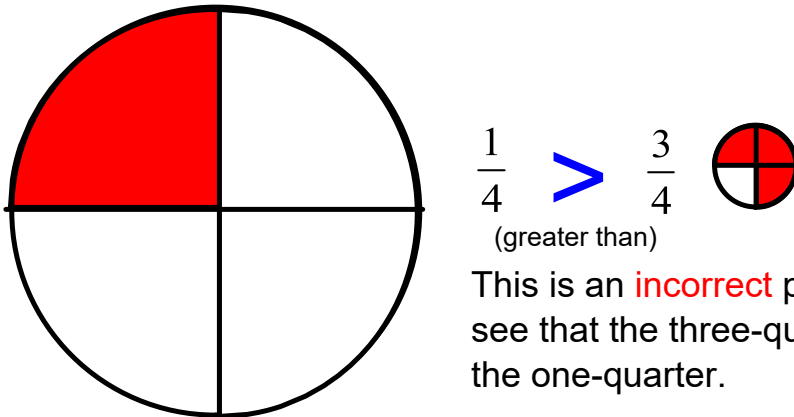


These types of fraction representations are found on most tape measures.

When we work with fractions we MUST assume the WHOLE unit is the same size for both fractions.

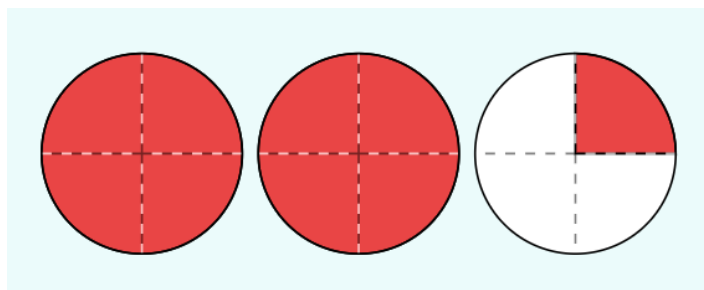
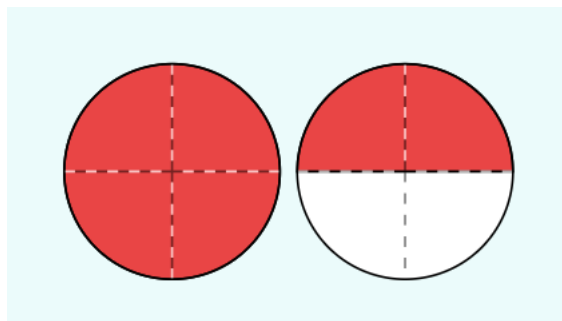


One quarter is smaller than three quarters - this is the **correct** picture with the whole unit being the same size for both fractions.



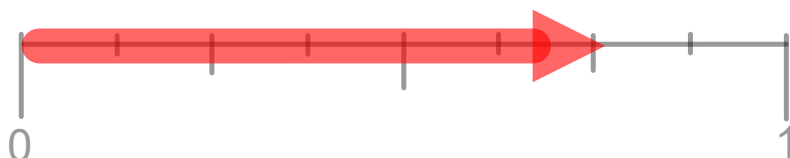
This is an **incorrect** picture, and we can see that the three-quarters is smaller than the one-quarter.

Fractions are not always less than ONE

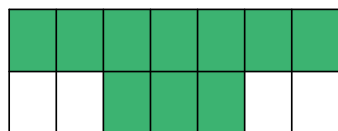


These are called MIXED fractions.

Express the following in Fraction Form:

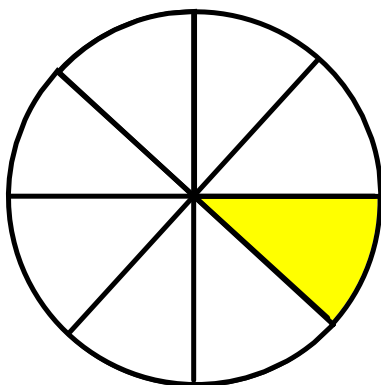


$$\frac{6}{8} \text{ or } \frac{3}{4}$$



What fraction is green?

$$\frac{10}{14}$$



What fraction is yellow?

$$\frac{1}{8}$$

Fractions - Decimals - Percents

Fraction	Decimal	Percent	Fraction out of 100
$\frac{1}{4}$			
$\frac{3}{8}$			
$\frac{3}{5}$			

Use division to create the decimal.

Multiply the decimal by 100 to get percent.

Write the percent as a fraction, compare it to the fraction listed in the table.

Phet Sim - Fractions Intro

