

Fractions – Whole Numbers and Mixed

Fractions are easy when they are parts of just one whole. But what happens when you bring more into the picture? These are called mixed numbers and they are incredibly important!

Vocabulary

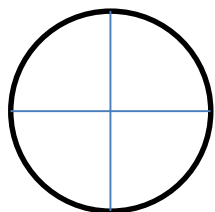
Whole

The combined total of all parts. One object.

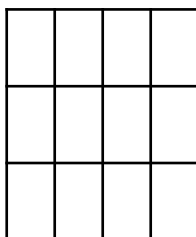
Mixed Number

One or more wholes with a fractional addition.

Review



This is a circle split into 4 equal parts. If you have all 4 parts, then you have 1 whole circle.



Look at this partitioned rectangle. What fraction will you need to have 1 whole rectangle? _____

Complete the following fractions to equal 1 whole.

$\frac{\quad}{2}$

$\frac{\quad}{6}$

$\frac{\quad}{3}$

$\frac{\quad}{8}$

$\frac{\quad}{16}$

$\frac{\quad}{89}$

$\frac{\quad}{839}$

$\frac{\quad}{b}$

Thinker:

What does this fraction mean?

$\frac{4}{1}$

Complete the following equations:

$\frac{5}{1} =$	$\frac{2}{1} =$
$\frac{7}{1} =$	$\frac{9}{1} =$
$\frac{10}{1} =$	$\frac{a}{1} =$

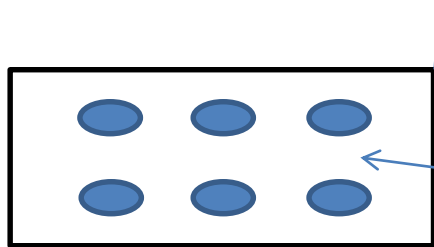
Clarify:

The fractions above look a lot like sets.

How are they different?

1 whole set

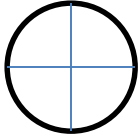
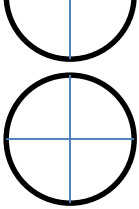
$\frac{3}{7}$



Fractional pieces

Model this fraction with a set.

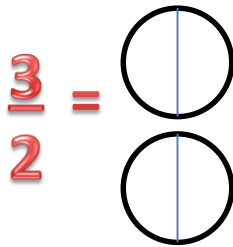
Mixed Numbers

If  = $4/4$ or 1 whole What does  =

Improper Fractions

Improper Fractions are fractions that have numerators that are larger than their denominators.

They represent a fraction that is **larger** than a whole.



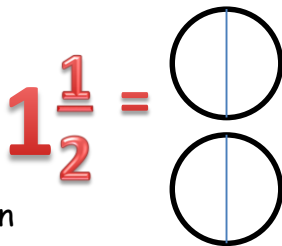
Model the following improper fractions

$\frac{7}{4}$	$\frac{8}{6}$
$\frac{4}{3}$	$\frac{10}{8}$

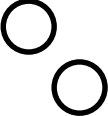
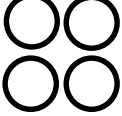


Mixed Numbers

Mixed Numbers are whole numbers with additional fractional parts.

They also represent a fraction that is **larger** than a whole.

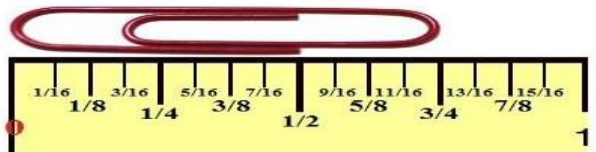


Label the following models with a mixed number.

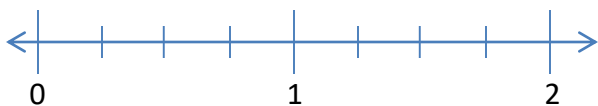
	
	

Improper Fractions and Mixed Numbers on a Number Line

A ruler is a great way to think about mixed numbers on a number line. How big is the paper clip?



We are used to making our number lines between 0 and 1. With mixed numbers they can go much further. Each step between whole numbers needs to be partitioned equally.



Plot the following points

- $3/4$
- $1\frac{1}{4}$
- $7/4$