

Year 5 - Maths (Week 8)

Group 1

Fractions 1

Lesson 1 - I can write mixed number fractions.

Lesson 2- I can compare fractions.

Lesson 3 - I can order fractions in number sequences.

Hello Year 5!

This week is all about learning about fractions. Each lesson will have instructions if you can't watch the video, but please do so if you can.

If you have any questions, problems, comments or would like to share your learning, email year5@mpjs.org.uk

I can identify equivalent fractions (1).

Getting Started - example

Last lesson you worked on writing improper fractions where the numerator (top number) was bigger than the denominator (bottom number)



Today we are going to be writing fractions in a different way called a mixed number.

A mixed number has a whole number at the front.



A mixed number has a fraction at the back.

To write a mixed number we have to think of how many wholes and parts we have.

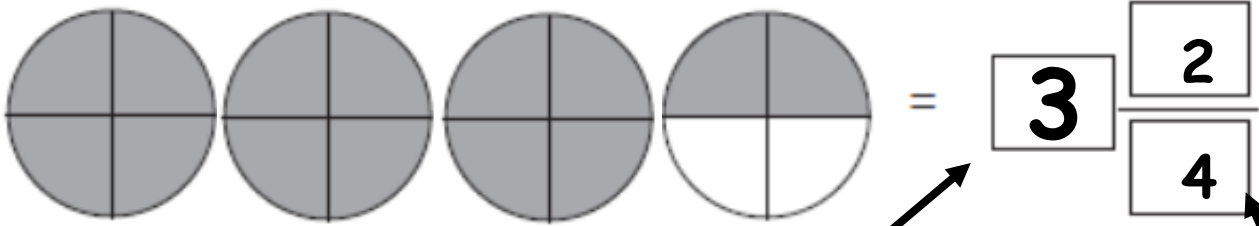
1. So I put a 2 here to represent 2 wholes

2. I place the leftover fraction here.

3. I can see what I have left.
The whole is divided into 4 equal parts, I have 2 parts shaded, I have 2/4.

4. I have 2 whole circles (they are shaded completely)

Getting Started- Example #2



How many circles are fully shaded? 3

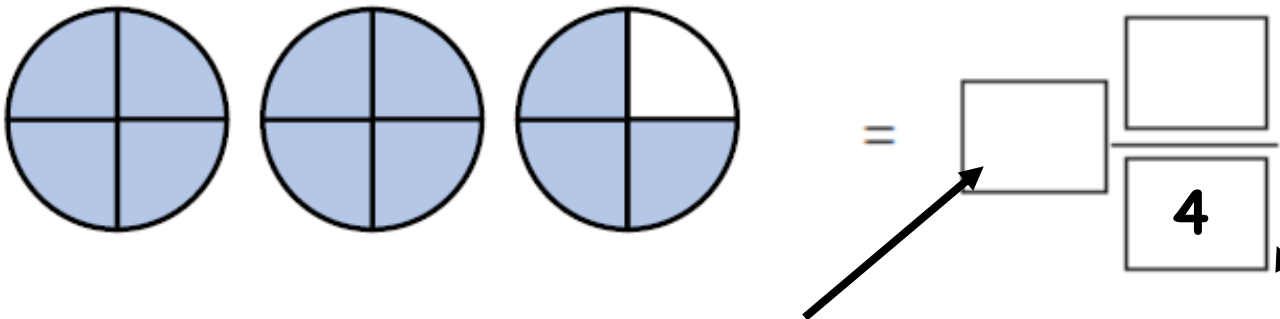
What fraction is leftover?

$\frac{2}{4}$

Getting Started - Your turn.

1. Can you write these fractions as mixed numbers?

a.

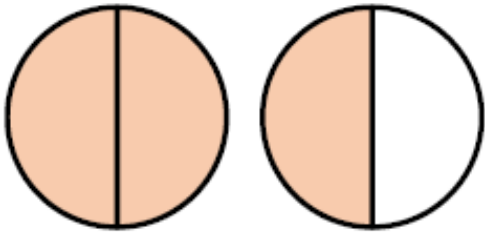


How many circles are fully shaded? _____

What fraction is leftover?

$\frac{\square}{4}$

b.



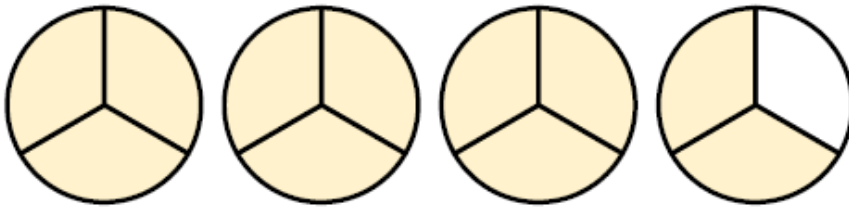
$$= \square \frac{\square}{2}$$

How many circles are fully shaded? _____

What fraction is leftover? $\frac{\square}{2}$

$\frac{\square}{2}$

c.



$$= \square \frac{\square}{3}$$

How many circles are fully shaded? _____

What fraction is leftover? $\frac{\square}{3}$

$\frac{\square}{3}$

d.



$$= \square \frac{\square}{5}$$

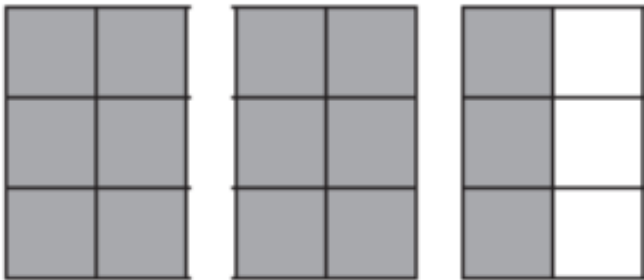
What fraction is leftover? $\frac{\square}{5}$

How many circles are fully shaded? _____

Making Headway

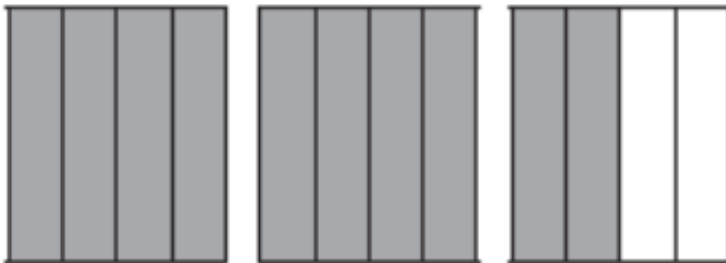
2. Can you write a mixed fraction for each of these shapes?

a



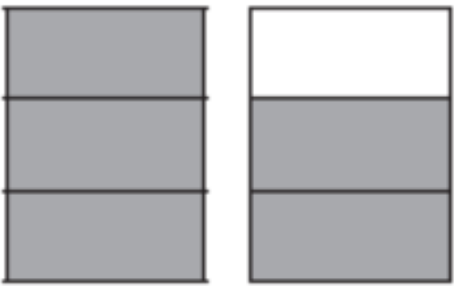
$$= \square \frac{\square}{6}$$

b



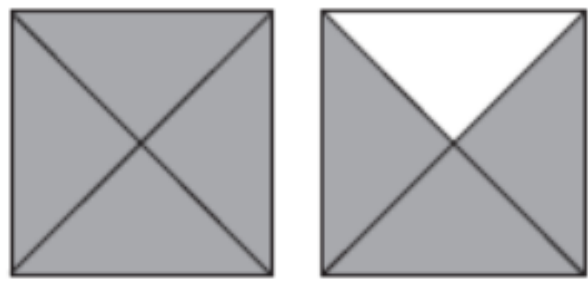
$$= \square \frac{\square}{4}$$

c



$$= \square \frac{\square}{3}$$

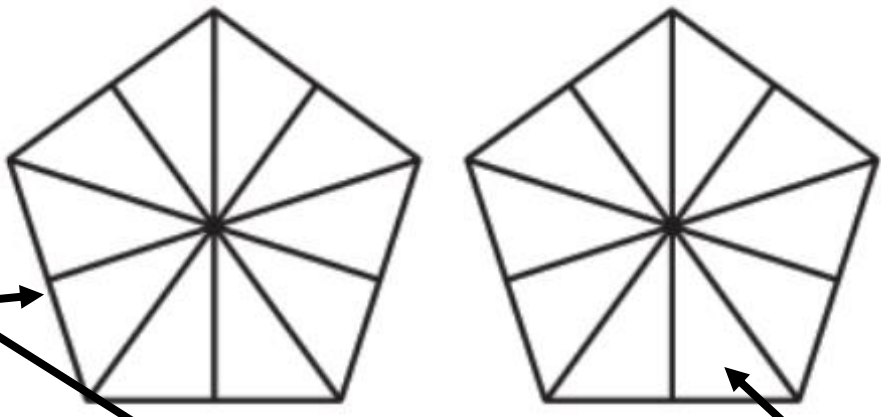
d



$$= \square \frac{\square}{4}$$

Aiming High - example

I know that 1 shape is fully shaded as by mixed number has a '1'.



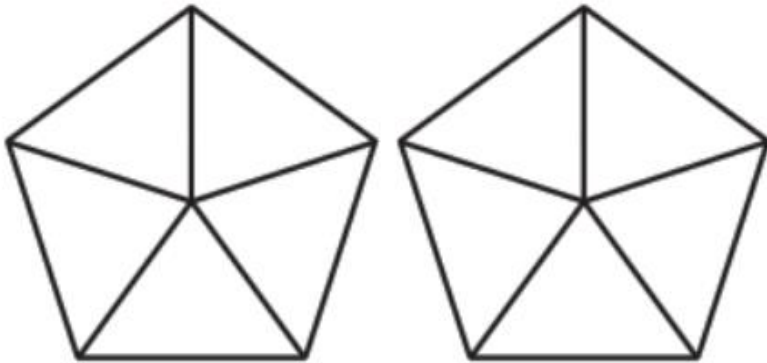
$$1 \frac{4}{10}$$

I know I need to shade 4 parts as the leftover fraction has 4 as a numerator.

Aiming High - your turn!

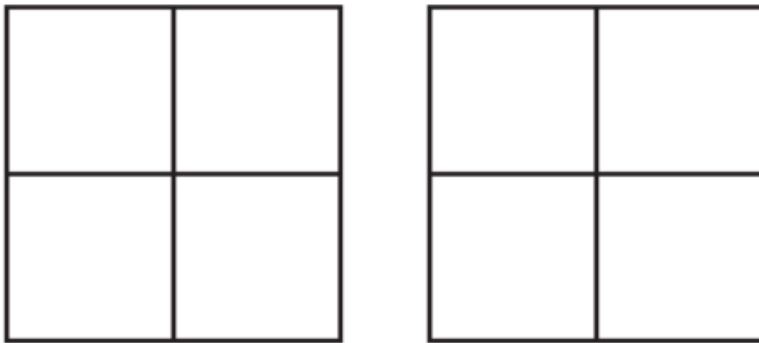
3. Can you shade the shapes to show the mixed number?

a



$$1\frac{2}{5}$$

b



$$1\frac{3}{4}$$

c



$$2\frac{2}{3}$$

Getting Started - Example

Today we will be comparing fractions and seeing which are bigger and which are smaller.

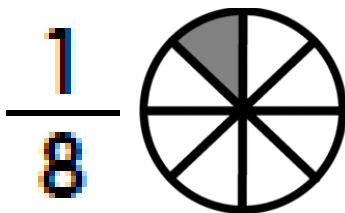
Lets work out which is the largest out of these numbers:

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

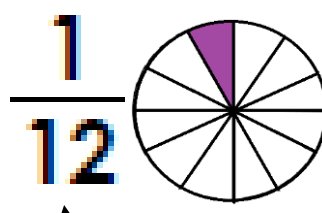
$$\frac{1}{12}$$

$$\frac{1}{5}$$

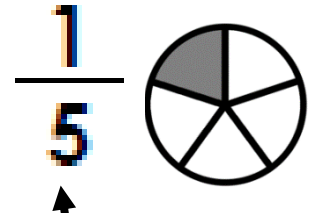
The denominator (bottom number) tells us how many pieces the whole is divided into.



The whole is divided into 8 parts. I have 1 of those parts.



The whole is divided into 12 parts. I have 1 of those parts.



The whole is divided into 5 parts. I have 1 of those parts.

If the fraction has a numerator of 1 - the larger the denominator the smaller the fraction is.

SMALLEST

LARGEST

$$\frac{1}{12}$$

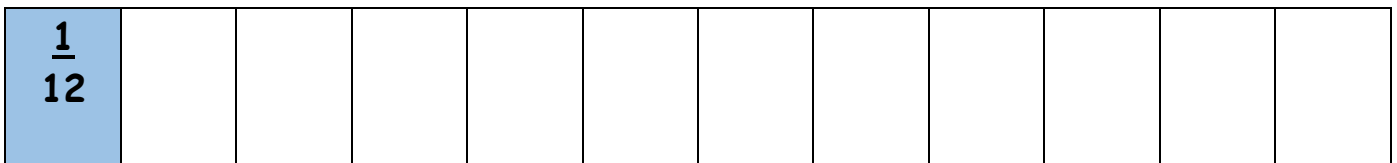
$$\frac{1}{8}$$

$$\frac{1}{5}$$

I am the smallest fraction as my denominator is 12 which means my whole is cut into more pieces than the others.

I am the LARGEST fraction as my denominator is 5 so is cut into less pieces than the others.

Lets see this on a model:



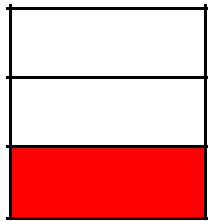
As you can see, $\frac{1}{5}$ is much bigger than $\frac{1}{12}$ and $\frac{1}{8}$. So when you are looking at finding the biggest fraction - look for the smallest denominator.

Getting Started

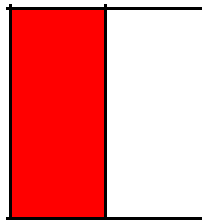
1. Which fraction is the largest? Circle your answer.

a.

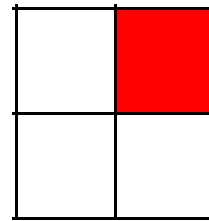
$$\frac{1}{3}$$



$$\frac{1}{2}$$

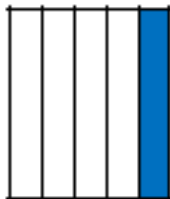


$$\frac{1}{4}$$



b.

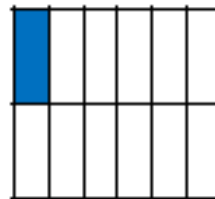
$$\frac{1}{5}$$



$$\frac{1}{2}$$



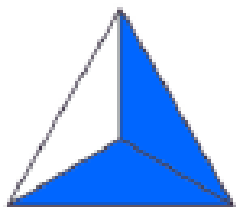
$$\frac{1}{12}$$



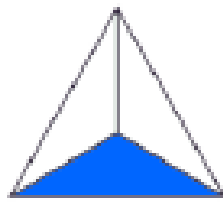
2. Which fraction is the smallest? Circle your answer

a.

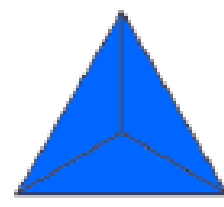
$$\frac{2}{3}$$



$$\frac{1}{3}$$

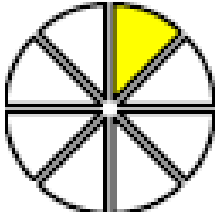


$$\frac{3}{3}$$

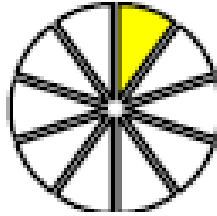


b.

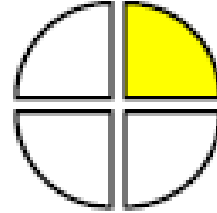
$$\frac{1}{8}$$



$$\frac{1}{10}$$



$$\frac{1}{4}$$



Making Headway - Example

We are going to use our comparing symbols:

More than

Less than

equal to (the same as)

>

<

=

We put these between 2 numbers or fractions to compare them.

Number example:

$$4 > 2 \text{ (4 is more than 2)}$$

$$2 < 4 \text{ (2 is less than 4)}$$

$$12 = 12 \text{ (12 is equal to 12)}$$

Fraction example:




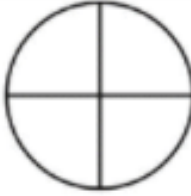


$$\frac{1}{4} > \frac{1}{8} \text{ (1/4 is more than 1/8)}$$







$$\frac{1}{12} < \frac{1}{9} \text{ (1/12 is less than 1/9)}$$

$$\frac{2}{4} = \frac{1}{2} \text{ (2/4 is equal to 1/2)}$$

Making Headway

3. Shade the fractions shown and then use $<$, $>$ or $=$ to compare them. I have done the first one for you.

 $\frac{1}{2}$	$>$	 $\frac{1}{3}$
 $\frac{1}{3}$		 $\frac{1}{4}$
 $\frac{1}{5}$		 $\frac{1}{3}$

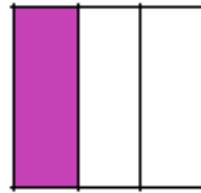
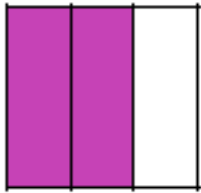
 $\frac{2}{5}$		 $\frac{1}{2}$
 $\frac{1}{3}$		 $\frac{2}{6}$
 $\frac{1}{4}$		 $\frac{1}{5}$

Aiming High

4. Circle true if you think the answer is right ✓ and false if you think it is wrong ✗ .

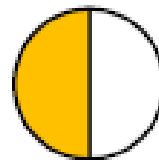
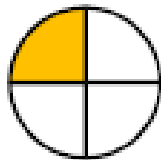
a. True or false? Is $\frac{2}{3}$ bigger than $\frac{1}{3}$?

$$\frac{2}{3} > \frac{1}{3}$$



b. True or false? Is $\frac{1}{4}$ bigger than $\frac{1}{2}$?

$$\frac{1}{4} > \frac{1}{2}$$



I can order fractions in number sequences.

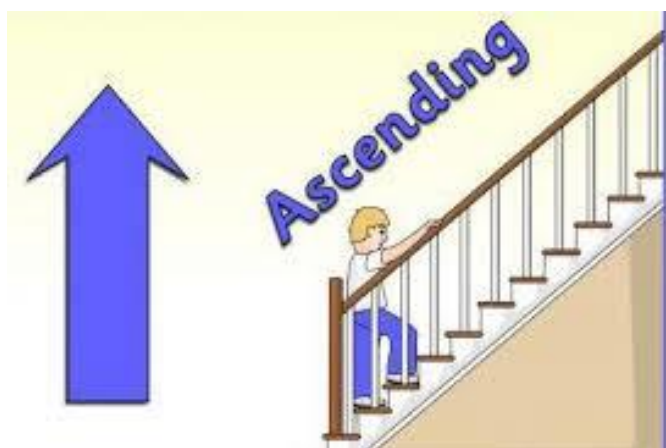
Today we are going to order fractions in a sequence.

A sequence is a line of numbers or fractions.

A sequence can go from smallest to biggest (2, 4, 6, 8, 10)

Or from biggest to smallest (10, 8, 6, 4, 2)

Sometimes we call this ascending and descending order.

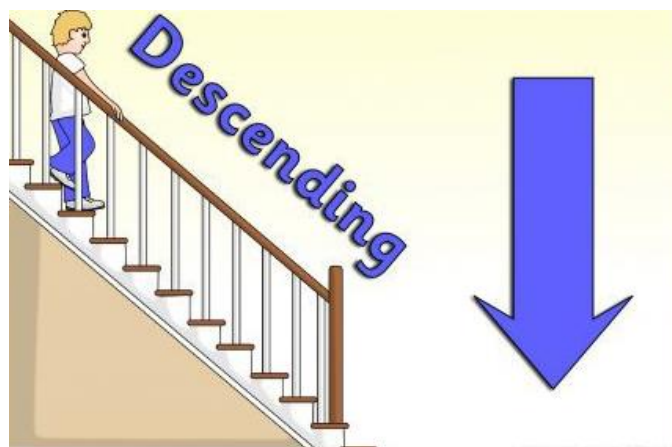


Ascending means going from smallest to the biggest.

We can use this word to describe going up the stairs because we start at the smallest level and go to the highest.

Descending means going from biggest to smallest.

We can use this word to describe going down the stairs because we start at the highest (biggest) level and go down to the smallest.



Ordering fractions example:

I am going to order these fractions in *ASCENDING* order.

$$\frac{5}{6}$$

$$\frac{4}{6}$$

$$\frac{3}{6}$$

$$\frac{6}{6}$$



Smallest

Largest

$$\frac{3}{6}$$

$$\frac{4}{6}$$

$$\frac{5}{6}$$

$$\frac{6}{6}$$

Now I will order the same fractions in *DESCENDING* order.

$$\frac{5}{6}$$

$$\frac{4}{6}$$

$$\frac{3}{6}$$

$$\frac{6}{6}$$



Largest

Smallest

$$\frac{6}{6}$$

$$\frac{5}{6}$$

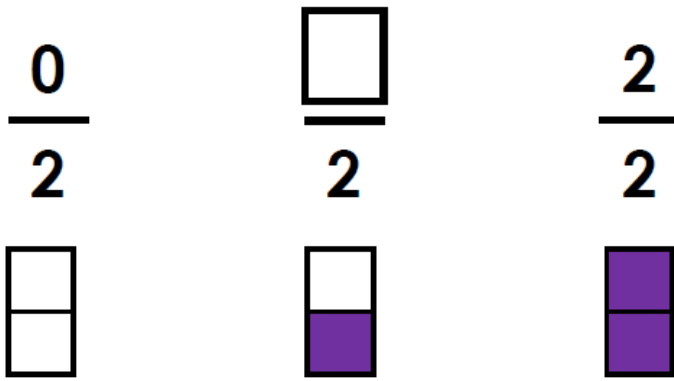
$$\frac{4}{6}$$

$$\frac{3}{6}$$

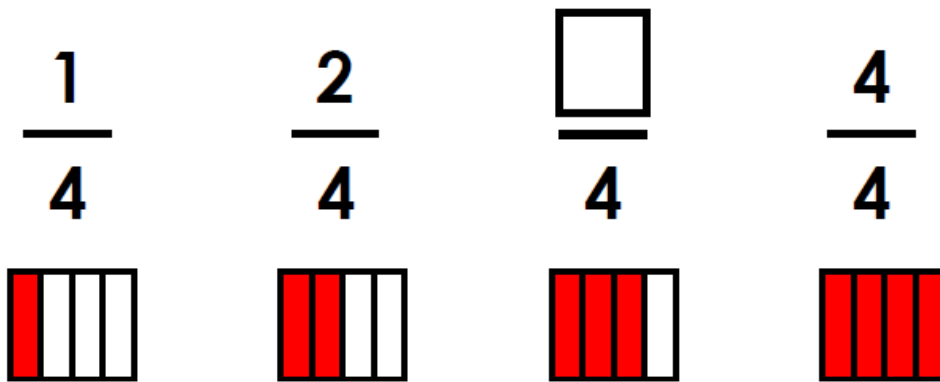
Getting Started - Your turn!

1. Complete these sequences by filling in the missing numerator.

a.

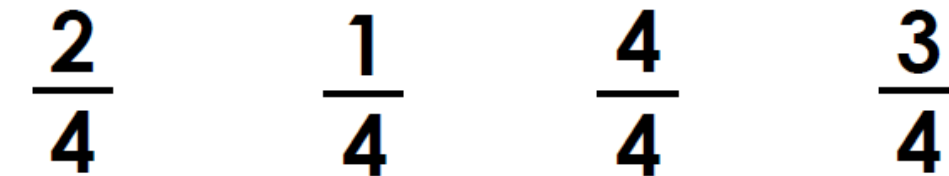


b.



2. Order the fractions in ascending order (smallest to largest)

a.



Smallest

Largest

\square
\square

\square
\square

\square
\square

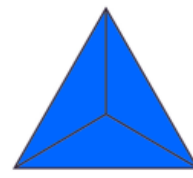
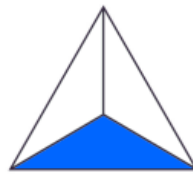
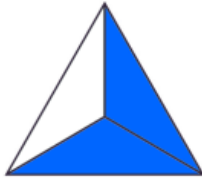
\square
\square

b.

$$\frac{2}{3}$$

$$\frac{1}{3}$$

$$\frac{3}{3}$$



Smallest

Largest

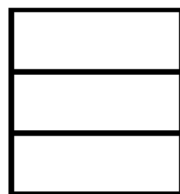
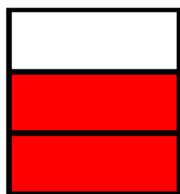
3. Order the fractions in descending order (largest to smallest).

a.

$$\frac{2}{3}$$

$$\frac{0}{3}$$

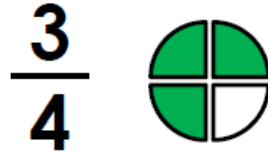
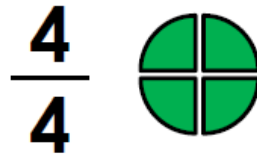
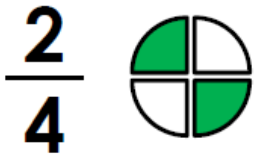
$$\frac{3}{3}$$



Largest

Smallest

b.



Largest

Smallest

Making Headway.

4. Can you label the missing fraction from the sequence?

a.

$$\frac{1}{5}$$

$$\frac{2}{5}$$

$$\frac{\square}{5}$$

$$\frac{4}{5}$$

$$\frac{\square}{5}$$

b.

$$\frac{3}{8}$$

$$\frac{\square}{8}$$

$$\frac{5}{8}$$

$$\frac{6}{8}$$

$$\frac{\square}{8}$$

Aiming High - your turn

5. Can you order the fractions in Ascending order (smallest to largest).

REMEMBER! The fractions with the smallest denominators are the largest!

a.

$$\frac{1}{4}$$

$$\frac{1}{6}$$

$$\frac{1}{12}$$

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

$$\frac{1}{10}$$

$$\frac{1}{3}$$



Smallest

Largest

$$\frac{1}{12}$$

$$\frac{1}{10}$$

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

$$\frac{1}{6}$$

$$\frac{1}{4}$$

$$\frac{1}{3}$$

$$\frac{1}{3}$$

$$\frac{1}{4}$$

$$\frac{1}{6}$$

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

$$\frac{1}{10}$$

$$\frac{1}{12}$$

b.

$$\frac{1}{2}$$

$$\frac{1}{7}$$

$$\frac{1}{11}$$

$$\frac{1}{5}$$

$$\frac{1}{9}$$

$$\frac{1}{6}$$



Smallest

Largest

