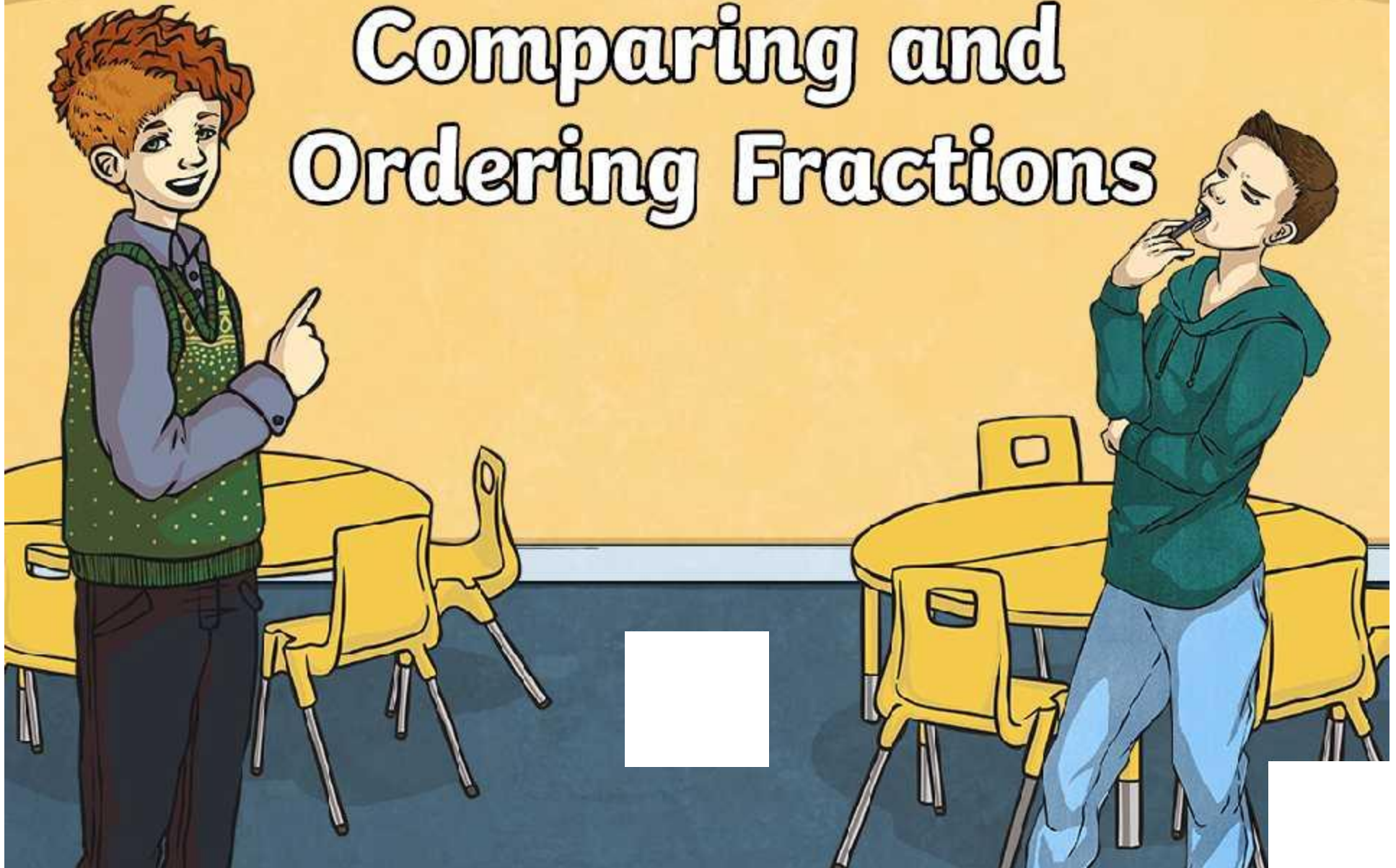
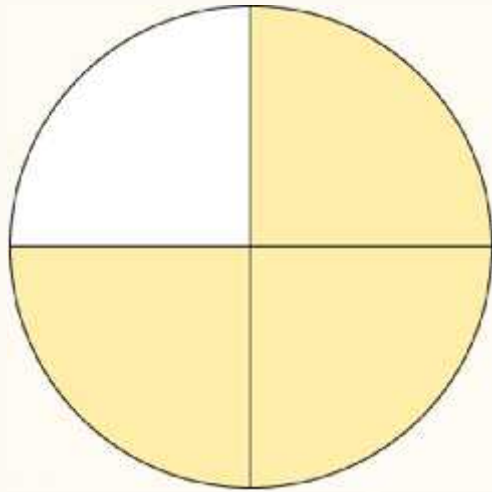


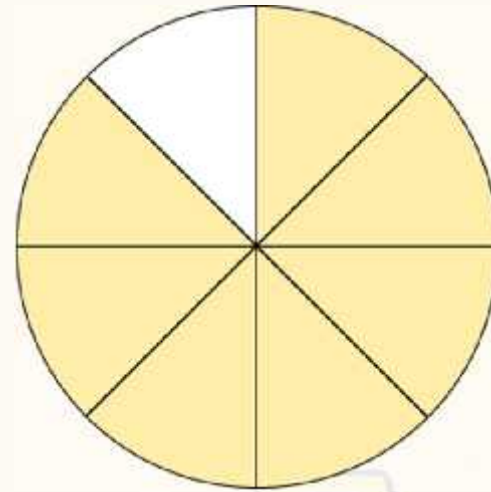
# Comparing and Ordering Fractions



# Comparing Fractions



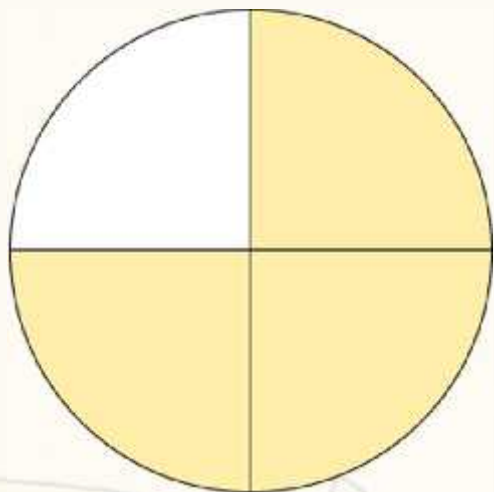
$$\frac{3}{4}$$



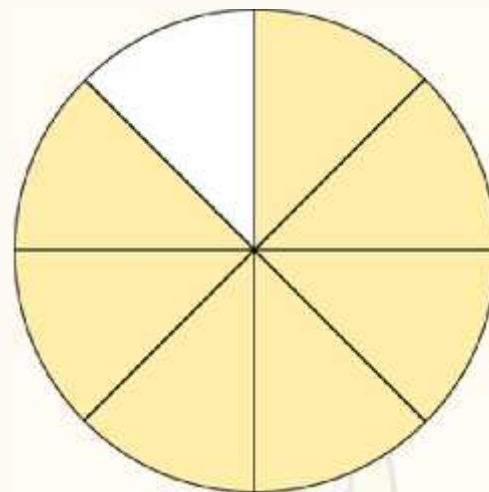
$$\frac{7}{8}$$

Both of these circles have been split into multiples of 4 therefore we can compare them.

# Comparing Fractions

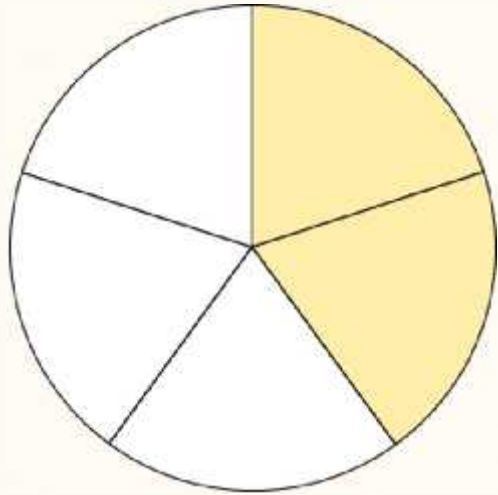


$$\frac{3}{4}$$

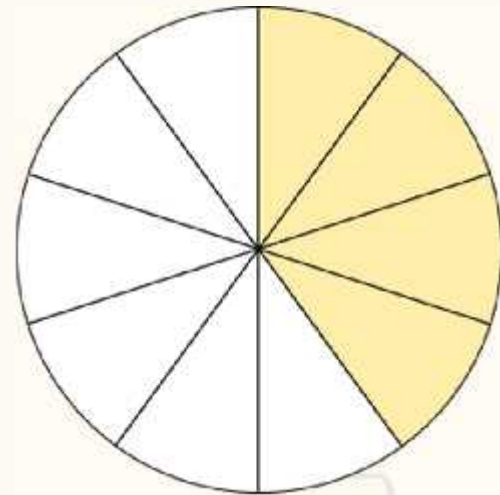


$$\frac{7}{8}$$

# Comparing Fractions



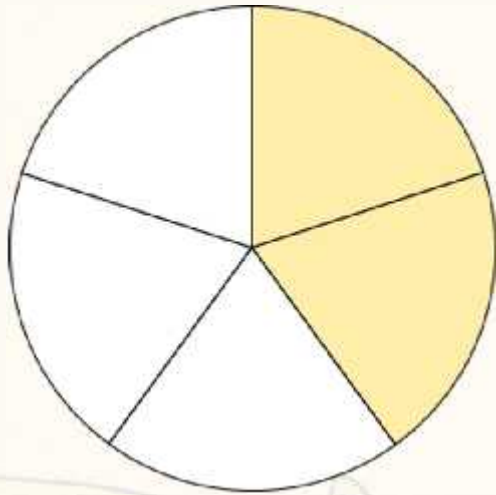
$$\frac{2}{5}$$



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

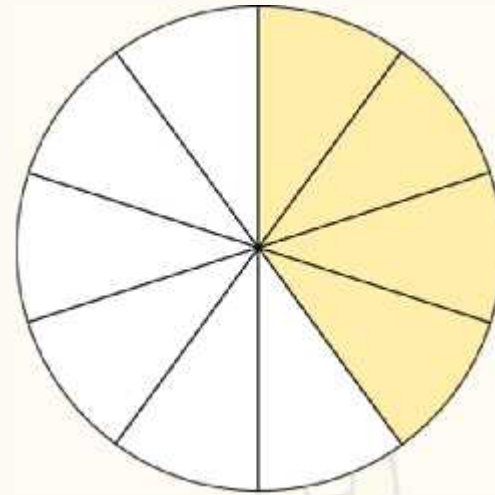
Both of these circles have been split into a multiple of 5 therefore we can compare them.

# Comparing Fractions



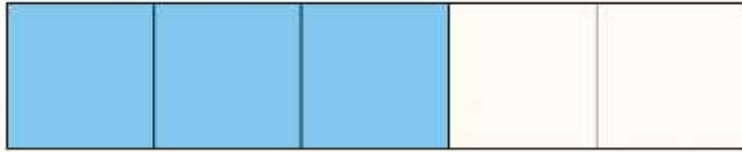
$$\frac{2}{5}$$

$$=$$



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

# Comparing Fractions



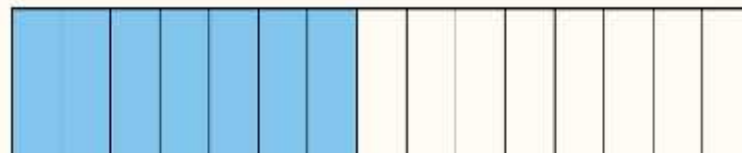
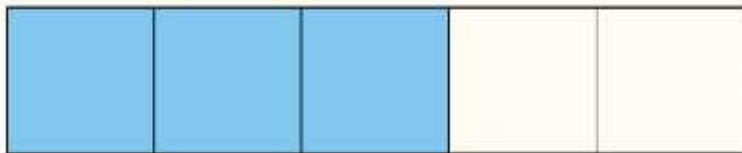
$$\frac{3}{5}$$



$$\frac{7}{15}$$

5 and 15 are both multiples of 5 therefore we can compare them.

# Comparing Fractions



$$\frac{3}{5}$$



$$\frac{7}{15}$$

# Comparing Fractions

$$\frac{1}{4} \quad \xrightarrow{\times 3} \quad \frac{3}{12}$$

To compare these two fractions, you must look at what has changed in the denominator, e.g.  $4 \times 3 = 12$

Therefore, if the numerator has changed in the same way, the fractions would be equal, e.g.  $1 \times 3 = 3$

$$\frac{1}{4} = \frac{3}{12}$$

**Remember the Rule:** When using multiplication to change the denominator of the fraction, whatever you do to the denominator, you must do the same to the numerator.



# Comparing Fractions



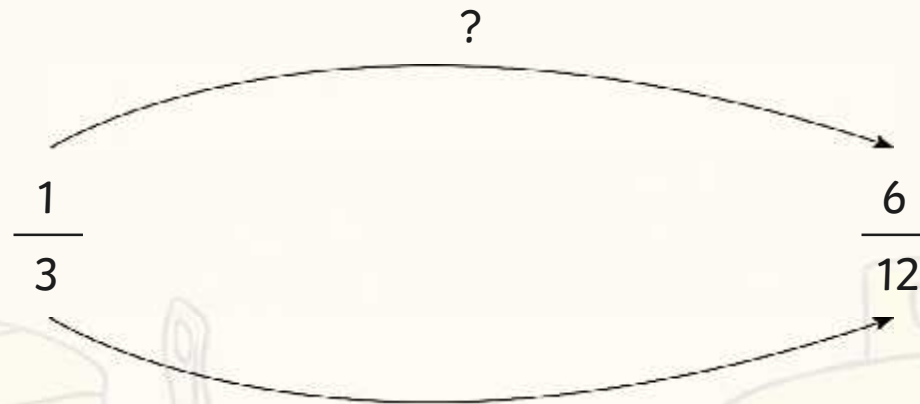
$$\frac{1}{4}$$

$$=$$

$$\frac{3}{12}$$

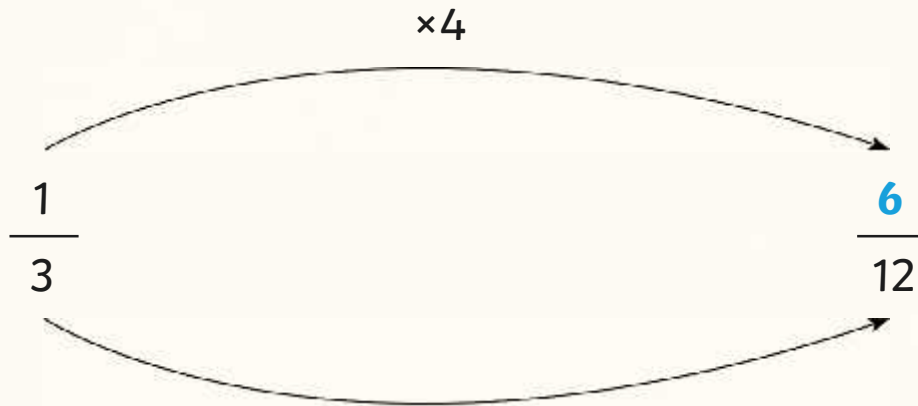
# Comparing Fractions

Can you compare these two fractions by looking at what has changed in the denominator and seeing if it is the same in the numerator?



**Remember the Rule:** Whatever you do to the denominator, you must do the same to the numerator.

# Comparing Fractions



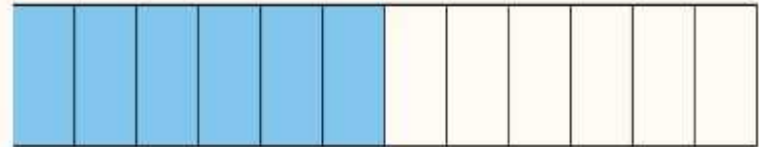
Hang on... that's not right!

$1 \times 4 = 4$ . Not 6.

$$\begin{array}{l} \times 4 \\ 3 \times 4 = 12 \end{array}$$

So these fractions are **not** equal.  
Which fraction is larger?

# Comparing Fractions



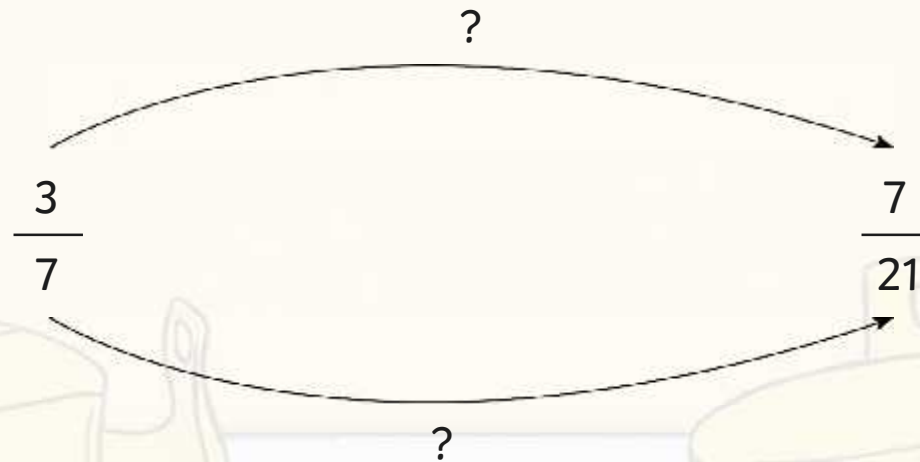
$$\frac{1}{3}$$



$$\frac{6}{12}$$

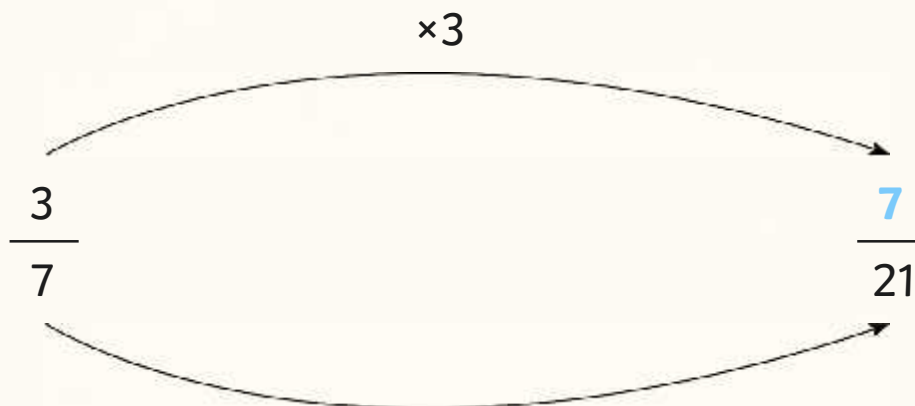
# Comparing Fractions

Can you compare these two fractions by looking at what has changed in the denominator?



**Remember the Rule:** Whatever you do to the denominator, you must do the same to the numerator.

# Comparing Fractions

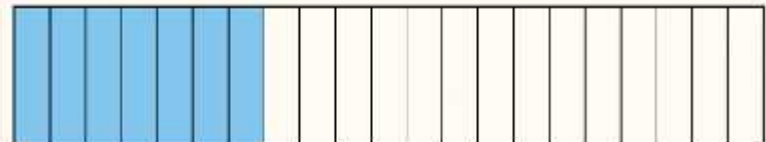
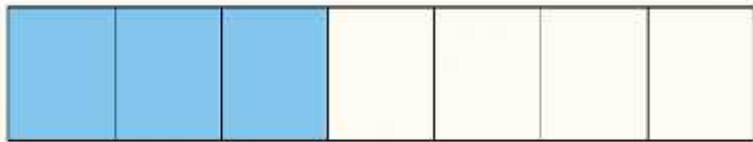


Hang on... that's not right!  
 $3 \times 3 = 9$ . Not 7.

$\times 3$   
 $7 \times 3 = 21$

So these fractions are **not** equal.  
Which fraction is larger?

# Comparing Fractions



$$\frac{3}{7}$$

>

$$\frac{7}{21}$$

# Comparing Fractions

Have a go at comparing these fractions:

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

<

$$\frac{5}{10}$$

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

=

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

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

>

$$\frac{12}{20}$$

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

=

$$\frac{12}{16}$$



# Ordering Fractions

The denominator in each of these fractions is a multiple of 4 therefore, we can compare **and** order them.

$$\frac{4}{8}$$

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

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

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

First, change all of the fractions so that they have the same denominator.

$$\frac{4}{8}$$

$$\frac{2}{8}$$

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

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

Then write them in order from **smallest** to **largest**. Remember to write them in their original form.

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

$$\frac{4}{8}$$

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

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

# Ordering Fractions

Can you order the following fractions from **smallest** to **largest**? Start by changing each of the fractions so that the denominator is 20.

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

$$\frac{2}{10}$$

$$\frac{9}{10}$$

$$\frac{3}{5}$$

$$\frac{3}{10}$$

$$\frac{8}{20}$$

$$\frac{4}{20}$$

$$\frac{18}{20}$$

$$\frac{12}{20}$$

$$\frac{6}{20}$$

Now put them in order! Remember to write them in their original form!

$$\frac{2}{10}$$

$$\frac{3}{10}$$

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

$$\frac{3}{5}$$

$$\frac{9}{10}$$

# Ordering Fractions

Order these fractions from **smallest** to **largest**? Decide on what denominator to change each fraction to.

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

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

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

$$\frac{7}{8}$$

$$\frac{2}{8}$$

$$\frac{4}{8}$$

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

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

$$\frac{7}{8}$$

$$\frac{2}{8}$$

Now put them in order! Remember to write them in their original form!

$$\frac{2}{8}$$

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

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

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

$$\frac{7}{8}$$

