Lesson 1- Consolidation

Comparing and Ordering Fractions

This week we will continue to consolidate what we have already learnt. We will begin with comparing and ordering fractions. Go through the powerpoint to remind yourselves on how we should do this.

The Same Denominator Method

The **denominator** is the bottom number in a fraction.

It shows how many equal parts the item is divided into

$$\frac{3}{4} \leftarrow \text{Numerator}$$
$$\frac{3}{4} \leftarrow \text{Denominator}$$

When two fractions have the **same denominator** they are easy to compare:

Example: $\frac{4}{9}$ is less than $\frac{5}{9}$ (because 4 is less than 5)

is less than

$\frac{4}{9}$ $\frac{5}{9}$

But when the denominators are not the same we need to **make them the same** (using Equivalent Fractions).

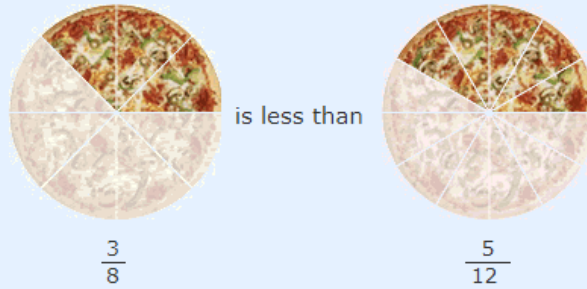**Example:** Which is larger: $\frac{3}{8}$ or $\frac{5}{12}$?

Look at this:

- When we multiply 8 × 3 we get 24,
- and when we multiply 12 × 2 we **also** get 24,

so let's try that (*important: what we do to the bottom we must also do to the top*):

× 3

$$\frac{3}{8} = \frac{9}{24} \quad \text{and} \quad \frac{5}{12} = \frac{10}{24}$$

× 3   × 2

× 2

We can now see that $\frac{9}{24}$ is smaller than $\frac{10}{24}$ (because 9 is smaller than 10).

➡ so $\frac{5}{12}$ is the larger fraction.

$\frac{3}{8}$ is less than $\frac{5}{12}$

Making the Denominators the Same

There are two main methods to make the denominator the same:

- Common Denominator Method, or the
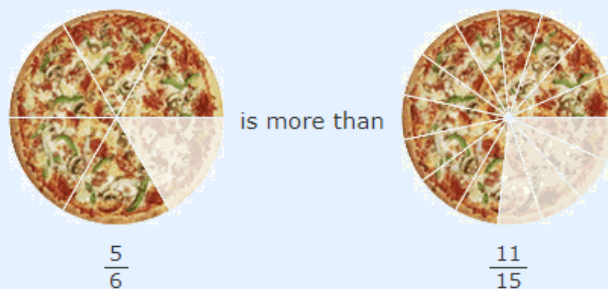- Least Common Denominator Method

They both work, use which one you prefer!

Example: Which is larger: $\frac{5}{6}$ or $\frac{11}{15}$?

Using the Common Denominator method we multiply each fraction by the denominator of the other:

× 15   × 6

$$\frac{5}{6} = \frac{75}{90} \quad \text{and} \quad \frac{11}{15} = \frac{66}{90}$$

× 15   × 6

We can see that $\frac{75}{90}$ is the larger fraction (because 75 is more than 66)

so $\frac{5}{6}$ is the larger fraction.

is more than

$\frac{5}{6}$ $\frac{11}{15}$

Depending on how confident you feel, choose 1 task from below:

1 star = Developing

2 stars = Expected

3 stars = Greater Depth

1 star

Compare and Order Fractions Less than 1

1a. Finish the model to show $\frac{7}{10}$ and $\frac{3}{5}$.

Compare using <, > or =.

Compare and Order Fractions Less than 1

1b. Finish the model to show $\frac{5}{6}$ and $\frac{1}{3}$.

Compare using <, > or =.

2a. Match the fraction to the correct model and then put them in ascending order.

1. $\frac{1}{4}$ A.

2. $\frac{3}{8}$ B.

3. $\frac{3}{4}$ C.

2b. Match the fraction to the correct model and then put them in ascending order.

1. $\frac{5}{6}$ A.

2. $\frac{9}{12}$ B.

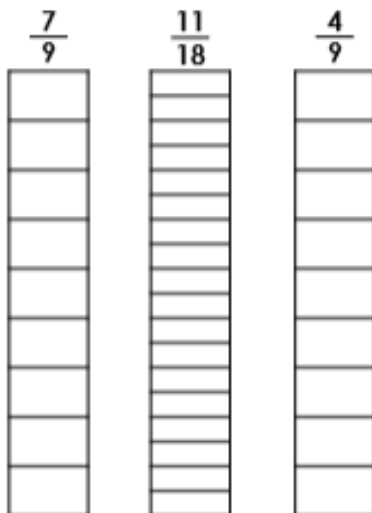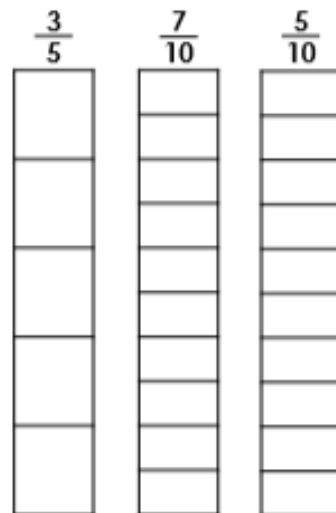3. $\frac{3}{6}$ C.

3a. True or false?

$\frac{7}{10} < \frac{7}{20}$

3b. True or false?

$\frac{4}{14} < \frac{4}{7}$

4a. Circle the largest fraction. Use the models to help you.

$\frac{7}{9}$ $\frac{11}{18}$ $\frac{4}{9}$

4b. Circle the largest fraction. Use the models to help you.

$\frac{3}{5}$ $\frac{7}{10}$ $\frac{5}{10}$

2 stars

Compare and Order Fractions Less than 1

5a. Finish the model to show $\frac{2}{6}$ and $\frac{5}{18}$.

Compare using <, > or =.
☆

6a. Match the fraction to the correct model and then put them in ascending order.

1. $\frac{2}{3}$ A.

2. $\frac{5}{6}$ B.

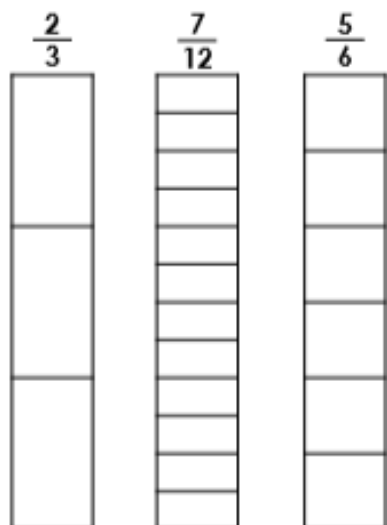3. $\frac{5}{12}$ C.

☆

7a. True or false?

$\frac{4}{5} < \frac{4}{9}$

☆

8a. Circle the largest fraction. Use the models to help you.

$\frac{2}{3}$ $\frac{7}{12}$ $\frac{5}{6}$

☆

Compare and Order Fractions Less than 1

5b. Finish the model to show $\frac{8}{15}$ and $\frac{3}{5}$.

Compare using <, > or =.
☆

6b. Match the fraction to the correct model and then put them in descending order.

1. $\frac{8}{10}$ A.

2. $\frac{1}{2}$ B.

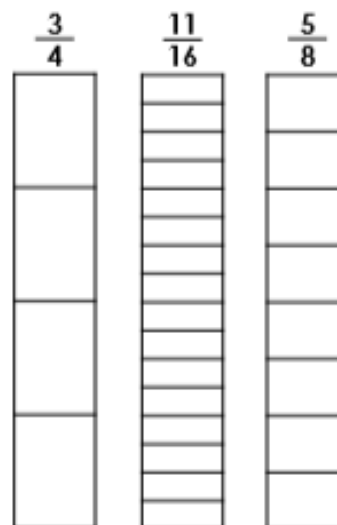3. $\frac{11}{20}$ C.

☆

7b. True or false?

$\frac{6}{11} < \frac{6}{9}$

☆

8b. Circle the largest fraction. Use the models to help you.

$\frac{3}{4}$ $\frac{11}{16}$ $\frac{5}{8}$

☆

3 stars

Compare and Order Fractions Less than 1
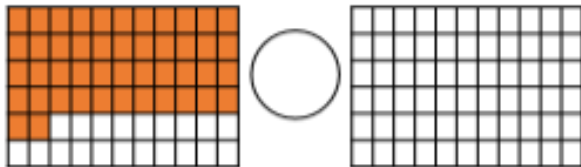
9a. Finish the model to show $\frac{9}{21}$ and $\frac{5}{14}$.
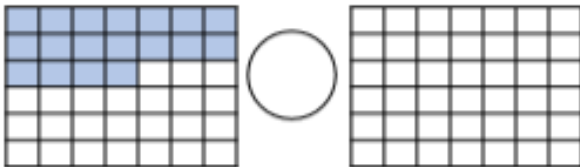
Compare using <, > or =.

9b. Finish the model to show $\frac{23}{33}$ and $\frac{19}{22}$.

Compare using <, > or =.

10a. Match the fraction to the correct model and then put them in ascending order.

1. $\frac{3}{6}$ A.
2. $\frac{11}{18}$ B.
3. $\frac{5}{12}$ C.

10b. Match the fraction to the correct model and then put them in descending order.

1. $\frac{4}{5}$ A.
2. $\frac{17}{25}$ B.
3. $\frac{7}{10}$ C.

11a. True or false?

$\frac{16}{48} > \frac{4}{16}$ Show your working.
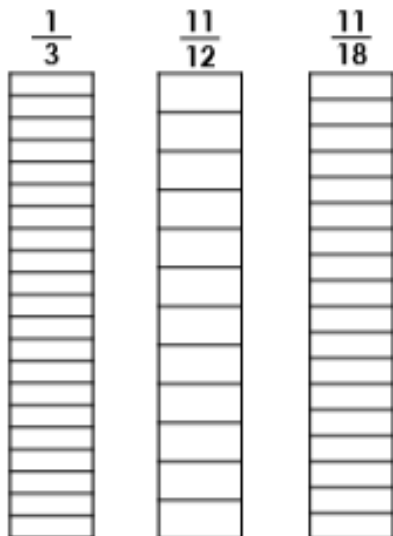
11b. True or false?
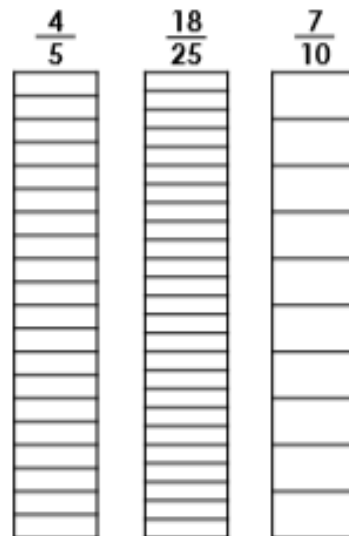
$\frac{3}{11} < \frac{9}{33}$ Show your working.

12a. Circle the largest fraction. Use the models to help you.

$\frac{1}{3}$ $\frac{11}{12}$ $\frac{11}{18}$

12b. Circle the largest fraction. Use the models to help you.

$\frac{4}{5}$ $\frac{18}{25}$ $\frac{7}{10}$