



THIRD SPACE
LEARNING



HELLO!

Today we are going to revise improper
fractions and mixed numbers

Arithmetic Warm Up

1. $\frac{5}{7} - \frac{3}{7} =$

2. $\frac{6}{12} = \frac{\text{[]}}{36}$

3. One whole in fifths =

Revision on fractions



Today we are going to revise how to:



represent fractions as improper or mixed numbers



add and subtract fractions with different denominators.

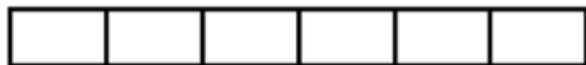
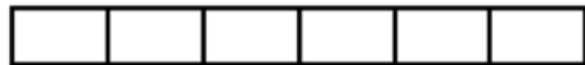
Revision: Improper fractions and mixed numbers

Proper fractions are less than or equal to 1 whole: $\frac{3}{5}$ or $\frac{1}{6}$

When a fraction is more than 1 whole, it can be written as an **improper fraction** or a **mixed number**:

1) Change the **improper fraction** below to a **mixed number**

$$\frac{7}{6} = \square \frac{\square}{\square}$$



2) Change the **mixed number** below to an **improper fraction**

$$2 \frac{2}{3} = \frac{\square}{\square}$$



Revision: Adding and subtracting fractions

1.

$$\frac{2}{4} + 1\frac{3}{4} = \frac{2}{4} + \frac{\boxed{}}{\boxed{}} = \frac{\boxed{}}{\boxed{}} = \boxed{} \frac{\boxed{}}{\boxed{}}$$

2.

$$2\frac{3}{4} - 1\frac{1}{3} = \frac{\boxed{}}{\boxed{}} - \frac{\boxed{}}{\boxed{}} = \frac{\boxed{}}{\boxed{}} - \frac{\boxed{}}{\boxed{}}$$

$$= \frac{\boxed{}}{\boxed{}} = \boxed{} \frac{\boxed{}}{\boxed{}}$$

Why can't you just add the numerators together when you have two fractions with different denominators?



Question 1

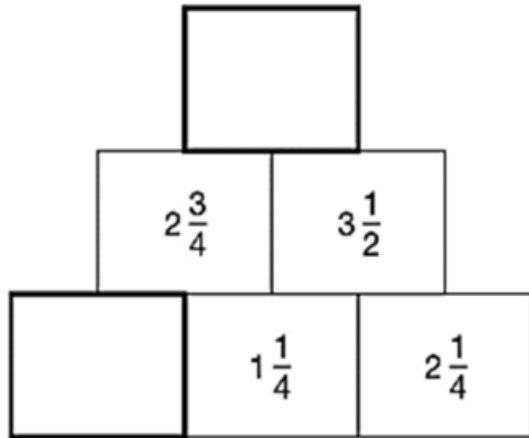


Complete

1. What do you notice?
2. What do you know?
3. Can you show your working out?
4. How could you extend the question?

In this diagram, the number in each box is the **sum** of the two numbers below it.

Write the missing numbers.

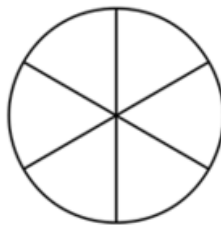
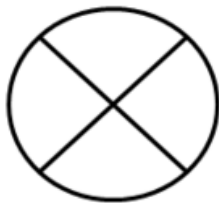




Complete

Question 2

A café sells 3 pieces from each of the cakes below.
How much cake has been sold in total?
Give your answer in its simplest form.



1. What do you notice?
2. What do you know?
3. Can you show your working out?
4. How could you extend the question?

Let's review:



represent fractions as improper or mixed numbers



add and subtract fractions with different denominators

Draw a circle around the smiley face to show how you feel about what we've just been doing.




CHALLENGE




Complete

1. What do you notice?
2. What do you know?
3. Can you show your working out?
4. How could you extend the question?

(a) Write numbers in the boxes to make this fraction calculation correct.


$$\frac{1}{\square} + \frac{\square}{5} = \frac{7}{10}$$

(b) Now write two **different** numbers to make the calculation correct.


$$\frac{1}{\square} + \frac{\square}{5} = \frac{7}{10}$$

Recognise mixed numbers and improper fractions on number lines

For each number line write the correct mixed fraction and the correct improper fraction.



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Convert from mixed numbers to improper fractions and vice versa



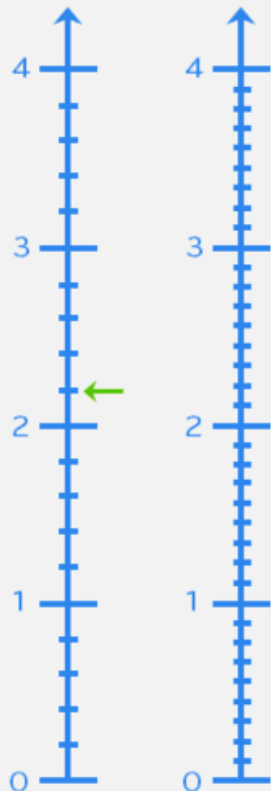
Write $\frac{11}{5}$ as a mixed number.

Explain how you found your answer.



Write $3\frac{5}{9}$ as an improper fraction.

Explain how you found your answer.



Adding fractions where the answer is greater than 1

1.

$$\frac{4}{5} + \frac{2}{5} = \boxed{\quad \text{---} \quad}$$

2.

$$\frac{3}{10} + \frac{9}{10} + \frac{1}{10} = \boxed{\quad \text{---} \quad}$$



Write these questions so the fractions have the same denominator.
Then write the answer.

3.

$$\frac{2}{3} + \frac{4}{9} = \frac{\boxed{\quad}}{\boxed{\quad}} + \frac{\boxed{\quad}}{\boxed{\quad}} = \boxed{\quad \text{---} \quad}$$

4.

$$\frac{9}{10} + \frac{2}{5} = \frac{\boxed{\quad}}{\boxed{\quad}} + \frac{\boxed{\quad}}{\boxed{\quad}} = \boxed{\quad \text{---} \quad}$$

Subtracting fractions where the answer is greater than 1

1. $1\frac{4}{5} - \frac{1}{5} = \boxed{\quad\quad\quad}$

2. $2\frac{3}{10} - 1\frac{2}{10} = \boxed{\quad\quad\quad}$



Write these questions so the fractions have the same denominator.
Then write the answer.

3. $1\frac{2}{3} - \frac{2}{9} = \boxed{\quad\quad\quad} - \frac{\boxed{\quad\quad\quad}}{\boxed{\quad\quad\quad}} = \boxed{\quad\quad\quad}$

4. $5\frac{9}{10} - 1\frac{2}{5} = \boxed{\quad\quad\quad} - \boxed{\quad\quad\quad} = \boxed{\quad\quad\quad}$