Starter – recap of highest common factor and lowest common multiple and the 4 operations.

Remember – factors are the numbers you multiply together to create a number (they come in pairs) and multiples are the numbers in that times table. For example, 4 and 3 are factors of 12, but 24, 36, 48 are multiples of 12 as they are in the 12 times table.

HCF and LCM	Back to Basics
Calculate the highest common factor for each pair of values: **1.)** 100 and 51 **2.)** 42 and 35 Calculate the lowest common multiple for each pair of values: **3.)** 9 and 8 **4.)** 16 and 3	**5.)** $\frac{9372}{73}$ = **6.)** 4,402 x 33 = **7.)** 3,298 + 7,129 = **8.)** 8,376 - 4,552 =

Year 5s divide by 3 or have a go at the long division for a challenge. Remember to write down your 73 partial table to help.

We will be recapping what we have already learnt about fractions so far!

1. Equivalent fractions – remember whatever you do to the denominator, you must do to the numerator and the other way around! We can't just add or subtract from these, we must be multiplying or dividing.

$\frac{4}{6}$ We can divide both the numerator (4) and the denominator (6) by 2 to give us $\frac{2}{3}$

$\frac{3}{30}$ We want to find an equivalent fraction with the denominator 10 $\frac{\quad}{10}$ I know that we have divided 30 by 3 to get 10, so I must divide the numerator by 3 too, so 3 ÷ 3 = 1. My answer is $\frac{1}{10}$

$\frac{8}{10}$ This time our equivalent fraction has a numerator of 4 $\frac{4}{\quad}$ so now I must work out the denominator. I know that 8 divided by 2 is 4, so we must divide 10 by 2 as well to give us 5. So my answer is $\frac{4}{5}$

2. Comparing fractions by changing the denominator – we can use our knowledge of factors and multiples to compare fractions. Remember we must change our fractions so they have the same denominator so we can compare.

Which is bigger $\frac{7}{10}$ or $\frac{3}{5}$? Explain how you know.

For example here I can see a relationship between the denominators. I know that 10 is 2 x 5. Therefore I can find an equivalent fraction for $\frac{3}{5}$ where the denominator is 10. I must complete the same operation for the denominator and the numerator. If I multiple the denominator by 2 (5 x 2) then I must multiple the numerator by 2 (3 x 2). The two fractions are now $\frac{7}{10}$ and $\frac{6}{10}$. When the denominators are the same we know that the smaller the numerator the smaller the fraction. So we know that $\frac{7}{10}$ must be bigger.

Can you use the same method to find the bigger fractions for these?

Circle the bigger fractions.

2	$\frac{3}{10}$	or	$\frac{1}{5}$	3	$\frac{60}{100}$	or	$\frac{32}{50}$	4	$\frac{3}{10}$	or	$\frac{5}{20}$	5	$\frac{6}{7}$	or	$\frac{11}{14}$

3. Changing fractions from improper and mixed numbers

Improper fraction – where the numerator is bigger than the denominator

Mixed number – a whole number with a fraction

$\frac{5}{3}$ = Here we have an improper fraction and we can change this to a mixed number. We must do 5÷3, which we know is 1 with remainder 2. The 1 would be our whole number and the remainder 2 changes to a fraction $\frac{2}{3}$ so our answer is $1\frac{2}{3}$

1	2	3
4	5	

1 whole

2 thirds

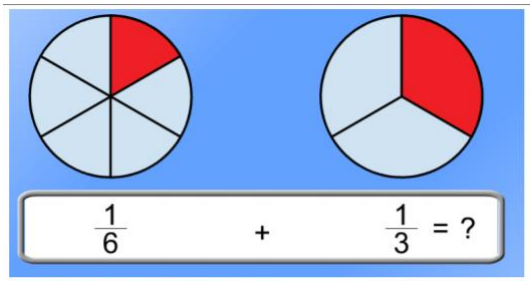
$1\frac{1}{3}$ When we have a mixed number and we want to change to an improper fraction we do the opposite. We have 1 whole that is divide by 3 (1 x 3 = 3) and an extra third.

1	2	3
4		

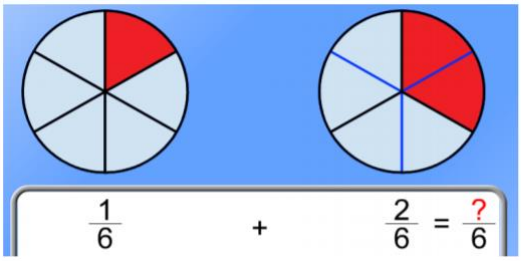
1 whole

1 third

so the answer would be $\frac{4}{3}$



To add or subtract a pair of fractions we must first convert them to the same denominator.



We can convert $\frac{1}{3}$ to $\frac{2}{6}$.

Then we can add $\frac{1}{6} + \frac{2}{6} = \frac{3}{6}$