Year 5

Maths Workshop
Tuesday 19th March 2019

Fractions

Equivalent fractions using the bar method

$$\frac{3}{4} = \frac{6}{8}$$

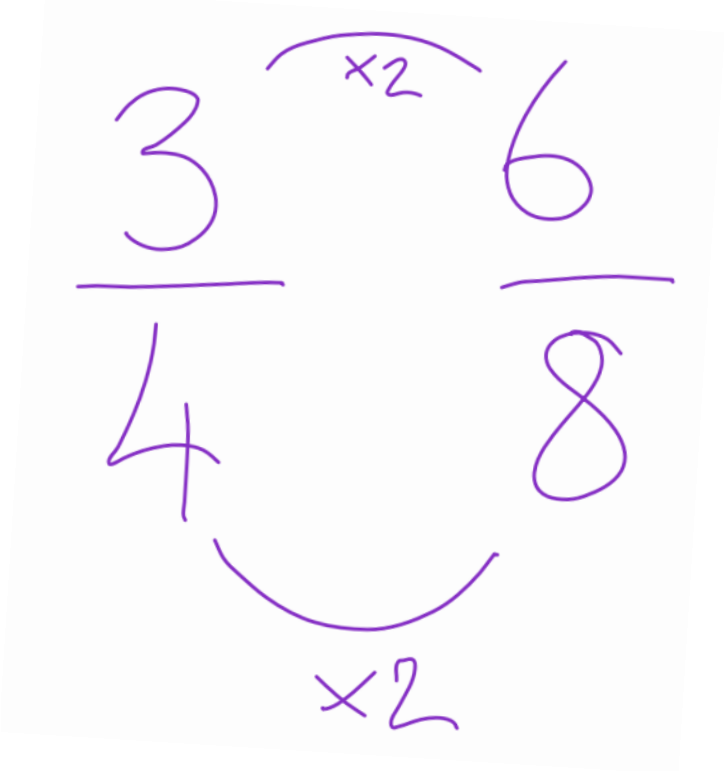
$\frac{1}{4}$		$\frac{1}{4}$		$\frac{1}{4}$		$\frac{1}{4}$	
$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$

1. Draw out two bars that are the same length (we sometimes call this a double decker bar).
2. Split the first bar into how many pieces you will need (look at the denominator - bottom number - to help you).
3. Label the fractions on the first bar.
4. The numerator tells us how many we are interested in (top number). In this case it is 3 pieces that we need to colour in pink.
5. Find a common denominator that you can split the whole second bar into (any multiple of the 4x table).
6. Label the fractions on the second bar.
7. Say what you see - there are 6 x 1/8 highlighted so 6/8 is equivalent (equal to) 3/4.
8. Therefore your answer is 3/4 is equivalent to 6/8.

Equivalent fractions using the written method

$$\frac{3}{4} = \frac{6}{8}$$

Once the children are secure in their understanding of the bar method, they can move onto the written method as below.



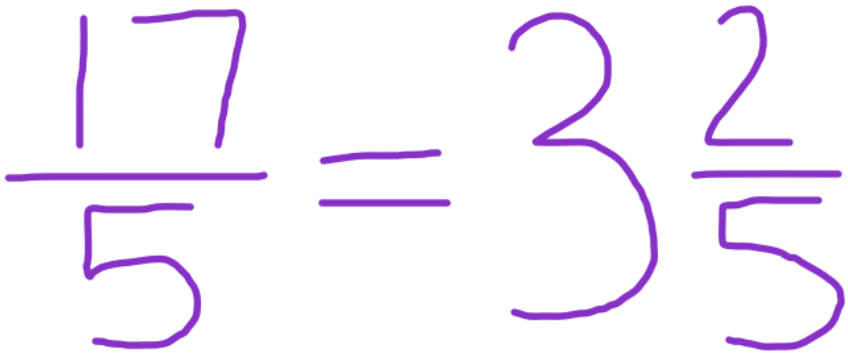
1. Write out the fraction.
2. Multiply (or divide, if possible) both the numerator (top number) and the denominator (bottom number) by the same number.

Converting mixed numbers into improper fractions.



1. Multiply the denominator (bottom number) by the whole number (number at the front) 8 x 2 = 16
2. Then add on the numerator (top number).
3. 16 + 6 = 22
4. Remember to add on the denominator.

Converting improper fractions into mixed numbers.



1. Recognise there are 5/5 in 1 whole.
2. Divide the numerator (top number) by the denominator (bottom number) to work out how many wholes you can get out of 17.
3. There are 3 wholes in 17 and 2/5 left over.
4. Therefore, your answer will be 3 and 2/5.

Fraction addition by converting to improper fractions

Steps for success

1) Write out your number sentence. $4\frac{3}{4} + 1\frac{3}{8}$

2) Turn the mixed numbers into improper fractions. $\frac{19}{4} + \frac{11}{8}$

3) Find a common denominator. $\frac{19}{4} \xrightarrow{\times 2} \frac{38}{8}$

4) Re-write my number sentence. $4\frac{3}{4} + 1\frac{3}{8} = \frac{38}{8} + \frac{11}{8} =$

5) Calculate the answer. $= \frac{49}{8}$

6) Convert the improper fraction back into a mixed number. $= 6\frac{1}{8}$

Fraction addition by using mixed numbers

Steps for success

1) Write out your number sentence. $4\frac{3}{4} + 1\frac{3}{8}$

2) Add the whole numbers together. $4 + 1 = 5$

3) Write out the fraction addition. $\frac{3}{4} + \frac{3}{8}$

4) Find a common denominator. $\frac{3}{4} \xrightarrow{\times 2} \frac{6}{8}$

5) Re-write my number sentence.

6) Calculate the answer. $\frac{6}{8} + \frac{3}{8} = \frac{9}{8}$

7) Convert the improper fraction back into a mixed number. $= 1\frac{1}{8}$

8) Add the whole numbers to the mixed number. $5 + 1\frac{1}{8} = 6\frac{1}{8}$

Fraction Subtraction

Steps for success

1) Write out your number sentence. $3\frac{7}{9} - \frac{1}{3}$

2) Find a common denominator. $\frac{1}{3} \xrightarrow{\times 3} \frac{3}{9}$

3) Re-write my number sentence. $3\frac{7}{9} - \frac{1}{3} = 3\frac{7}{9} - \frac{3}{9} =$

4) Calculate the answer. $= 3\frac{4}{9}$

5) Write a sentence to answer the question.