Thursday 14th May

L.K: Subtracting fractions with different denominators

Just like when we were adding fractions, we need to check that the denominators are the same when we are subtracting fractions. If they aren't, we need to change them and make sure that whatever we do to the denominator, we also do to the numerator!

$$\frac{3}{5} - \frac{4}{10} =$$

We can see that the denominators are not the same, so we need to change them. We know that there are two "5"'s in "10", so if we double the fraction on the left then we should have the same denominators.

$$\frac{6}{10} - \frac{4}{10} = \frac{2}{10}$$

We now have the same denominators and so can successfully subtract the fractions from each other.

Try these questions:

1) $\frac{2}{4} - \frac{3}{8} =$
2) $\frac{3}{9} - \frac{2}{18} =$
3) $\frac{3}{2} - \frac{1}{2} =$
4) $\frac{4}{9} - \frac{1}{3} =$
5) $\frac{6}{7} - \frac{3}{21} =$
6) $\frac{4}{7} - \frac{1}{14} =$
7) $\frac{4}{10} - \frac{1}{40} =$

Reasoning and Problem Solving

One Star

1) An orange contains 10 segments. $\frac{3}{10}$ are eaten by Tom and the rest by James. What fraction of the segments are eaten by James? How do you know?
2) In a stadium of football fans, $\frac{6}{8}$ are estimated to be Newcastle United fans. What fraction of the stadium could be Manchester United fans?
3) Sam feeds his hamsters $\frac{1}{7}$ of a bag of food in a week. How many weeks would $\frac{6}{7}$ of a bag of food last his hamster? How do you know?

Two Star

1) A chocolate bar has 12 equal pieces. Sami eats 4/12 of the bar than Hafsah . There is no more chocolate remaining. How much of the bar did Hafsah eat?
2) Lauren buys a bucket of chicken that contains 12 equally-sized pieces. She gives away 7/12 to her friends. How much is left for Lauren to eat?
3) Two apples are split into 8 equal pieces. This means that there are now 16 equal pieces of apple. They are eaten until only 4 remain. What fraction of apple has been eaten?
4) Anis eats $\frac{1}{6}$ of a pizza. Later, he eats another $\frac{5}{12}$. How much of the pizza has he eaten?

Three Star

1) A chocolate bar has 13 equal pieces. Sami eats 3 times more of the bar than Hafsah . There is one thirteenth of the bar remaining.
What fraction of the bar does Hafsah eat?

2) Which is the odd one out?

A $3\frac{1}{4} - \frac{3}{8}$

B $3\frac{1}{3} - \frac{2}{9}$

C $3\frac{2}{7} - \frac{1}{3}$

Explain why.

3) What fractions do you know that have a difference of $\frac{1}{4}$?

4) Aman really gets into a sport for a while then drops it and moves on to his latest craze. As a consequence, he has five and a half cupboards of old sports equipment. His mother makes him take some of it to the local charity shop. This leaves him with 2 full cupboards. How much has he taken to the shop?

Think about multiples!