

## Thursday 30<sup>th</sup> April

### L.K: Ordering fractions using multiplying and dividing

When we use multiplication and division to order fractions, we are looking at how many times one of the denominators can go into the other. For example:

$$\frac{3}{4} \text{ OR } \frac{9}{16}$$

We have the denominators "4" and "16". We know that 4 goes into 16 four times. Whatever we do to the denominator, we must do to the numerator. So the equation becomes:

$$\frac{12}{16} \text{ OR } \frac{9}{16}$$

And we can clearly see that  $\frac{12}{16}$  is the biggest fraction. We can also use the same principle with division.

$$\frac{5}{10} \text{ OR } \frac{30}{50}$$

We know that there are five 10's in 50, so we divide  $\frac{30}{50}$  by five and find that we have.

$$\frac{5}{10} \text{ OR } \frac{6}{10}$$

### Starter

- 1)  $\frac{2}{3}$  OR  $\frac{3}{12}$
- 2)  $\frac{4}{5}$  OR  $\frac{14}{20}$
- 3)  $\frac{5}{11}$  OR  $\frac{3}{44}$
- 4)  $\frac{3}{5}$  OR  $\frac{6}{35}$
- 5)  $\frac{4}{8}$  OR  $\frac{10}{16}$
- 6)  $\frac{8}{9}$  OR  $\frac{13}{27}$
- 7)  $\frac{7}{14}$  OR  $\frac{19}{42}$
- 8)  $\frac{5}{9}$  OR  $\frac{9}{3}$
- 9)  $\frac{12}{10}$  OR  $\frac{80}{100}$

## **Reasoning and Problem Solving**

### **One Star**

- 1) Can you show equivalent fractions to the fractions below?  
A)  $\frac{1}{4}$   
b)  $\frac{1}{3}$   
c)  $\frac{7}{10}$
- 2) I have  $\frac{2}{3}$  of a bar of chocolate. My friend eats  $\frac{4}{6}$  of his bar of chocolate. Do we eat an equivalent amount?
- 3) I eat  $\frac{3}{4}$  of a packet of crisps. My friend eats an equivalent amount, but his numerator is 12. What is his equivalent fraction?

### **Two Star**

- 1) James says "I think  $\frac{1}{5}$  is equivalent to  $\frac{2}{10}$ ." Is James correct? Show this in your book using diagrams.
- 2) Phil says " $\frac{4}{5}$  MUST be equivalent to  $\frac{8}{5}$ !" Is Phil correct? Can you explain the doubling method to Phil so that he can get the answer right next time?
- 3) I ate  $\frac{2}{3}$  of a pizza and my friend ate  $\frac{3}{9}$  of a pizza. Did we eat an equivalent amount of pizza?  
If not, how much would my friend have had to eat as a fraction to eat an equivalent amount to me?

### **Three Star**

- 1) James says "To find an equivalent fraction to  $\frac{1}{4}$ , I can just double the numerator and denominator or halve the numerator and denominator."  
Is James correct? Why do you think this?
- 2) " $\frac{1}{4}$  is equivalent to  $\frac{3}{32}$ ." Is this person correct? What mistake have they made?  
Can you find 3 fractions that are equivalent to  $\frac{1}{4}$ ?
- 3) 200 cans of Coke are dropped from a lorry.  $\frac{3}{5}$  of the cans explode,  $\frac{1}{10}$  of the cans are dented and the rest are still ok. How many of the cans exploded and how many were dented?  
EXTENSION: If the shopkeeper sells each can for £1, how much money has he made if he doesn't sell the exploded or dented cans?
- 4) Two cars are sold at auction. Each sells for £200. Owner A gets  $\frac{4}{5}$  of the cars price given to him and Owner B gets  $\frac{7}{10}$  of the price. Did they same amount of money and were the fractions equivalent?