

## Monday 11<sup>th</sup> May

### L.K: To add fractions with the same denominator

Fractions can be added, subtracted, multiplied or divided. To do this however, you usually need to have the denominator be the same number. This means that we can compare the two fractions as they are a proportion of the same amount.

When we add fractions, we ONLY add the numerators (the top numbers) together. If we were to add the denominators as well we would end up with a completely different answer!

Example:

$$\frac{2}{5} + \frac{1}{5} = \frac{3}{5}$$

As you can see, we noticed that the denominators are all the same. This means that we can add the fractions together without changing the denominator. We then added ONLY the numerators (2 and 1) together to get 3 and kept the denominator the SAME.

Tomorrow we will be looking at adding fractions with different denominators, but for now we are going to practice adding fractions with the same denominators so that we are clear on the basics. Try the following questions:

1)  $\frac{1}{3} + \frac{1}{3} =$

2)  $\frac{2}{3} + \frac{1}{3} =$

3)  $\frac{2}{5} + \frac{2}{5} =$

4)  $\frac{4}{11} + \frac{5}{11} =$

5)  $\frac{4}{6} + \frac{1}{6} =$

6)  $\frac{4}{5} + \frac{2}{5} =$

7)  $\frac{4}{7} + \frac{7}{7} =$


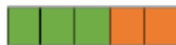

8)  $\frac{6}{8} + \frac{2}{8} =$

9)  $\frac{11}{3} + \frac{12}{3} =$

## Reasoning and Problem Solving

### One Star

- 1 Take two identical strips of paper. Fold your paper into quarters. Can you use the strips to solve:  
 $\frac{1}{4} + \frac{1}{4}$      $\frac{1}{4} + \frac{1}{4} + \frac{1}{4}$      $\frac{3}{4} + \frac{3}{4}$      $\frac{\square}{4} + \frac{\square}{4} = \frac{7}{4}$   
what other fractions can you make and add?

- 2 Use the models to add the fractions:  
  
  $\frac{3}{5} + \frac{4}{5}$   


Choose your preferred model to add:

$$\frac{2}{5} + \frac{1}{5} \quad \frac{3}{7} + \frac{6}{7} \quad \frac{7}{9} + \frac{4}{9}$$

- 3 Use the number line to add the fractions.



$$\frac{3}{7} + \frac{5}{7} + \frac{2}{7} \quad \frac{5}{8} + \frac{7}{8} + \frac{1}{8} \quad \frac{\square}{9} + \frac{5}{9} + \frac{7}{9} = \frac{17}{9}$$

### Two Star

- 1) If I have 3 quarters of a packet of crisps left and my friend had the same amount, how much do we both have altogether?
- 2) How many quarters can I add together until my number is more than 1? Can you show with a diagram?
- 3) If I split a pie into five equal sections, how many times can I give away exactly  $\frac{2}{5}$  of that pie? Can I give away three equal sections of this pie? Why?

### Three Star

- 1) Why is it important that we have the same denominator when we are adding fractions? Explain using an example.
- 2) I have  $1\frac{2}{3}$  apples and  $2\frac{1}{3}$  apples. How many apples do I have and how many people can I give a full apple to?
- 3)  $\frac{1}{8} + \frac{2}{4} = \frac{3}{12}$ . Spot and correct the mistake. What mistake was made?