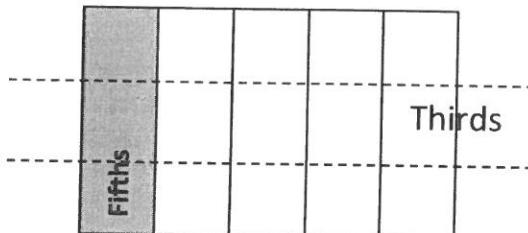


Written method for adding and subtracting fractions

Often drawing pictures of fractions can take too much time, and mentally adding them can be too difficult. This worksheet will use the pictures method to teach you how to add fractions using only numbers.

Example:

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



Part One: What is the denominator going to be?

Add the fractions using the pictures method and put the answer in the boxes above.

1. Draw a red circle around the denominator of $\frac{1}{5}$.
2. Draw a blue circle around the denominator of $\frac{1}{3}$.
3. Draw a green circle around the denominator of the answer.

What pattern do you notice between the denominators of all three fractions?

Write your pattern in words and symbols:

Part Two: Using equivalent fractions to work out the numerator:

One fifth is how many 15ths? + One third is how many 15ths? = How do we get the answer?

$$\begin{array}{c} \downarrow \\ \boxed{} \end{array} + \begin{array}{c} \downarrow \\ \boxed{} \end{array} = \begin{array}{c} \boxed{} \\ \hline 15 \end{array}$$

Write here some steps that you could use to add fractions using just the numbers:

Use the written method that you worked out on the previous page to add or subtract the following fractions:

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

What is the denominator going to be?

One third is how many?

One half is how many?

So what you are really doing is:

$$\frac{\square}{\square} + \frac{\square}{\square} = \frac{\square}{\square}$$

$$\frac{1}{3} - \frac{1}{4} = \frac{\square}{\square}$$

What is the denominator going to be?

One quarter is how many?

One third is how many?

So what you are really doing is:

$$\frac{\square}{\square} - \frac{\square}{\square} = \frac{\square}{\square}$$

$$\frac{2}{3} + \frac{1}{4} = \frac{\square}{\square}$$

What is the denominator going to be?

Two thirds is how many?

One quarter is how many?

So what you are really doing is:

$$\frac{\square}{\square} + \frac{\square}{\square} = \frac{\square}{\square}$$

Extension Question:

If the answer is *one half*, what could the question be? Give at least two answers for adding and subtracting fractions.