

Adding and subtracting fractions

Adding and subtracting fractions is easier than you might think. You just need to remember this simple method:

Step 1:

Make sure the denominators (numbers on the bottom) are the same on both fractions. Do this by finding the lowest common multiple of both denominators. For example with:

$$\frac{1}{3} + \frac{1}{2} \text{ The lowest common multiple of 3 and 2 is 6.}$$

Step 2:

Then multiply both denominators up to that number (if in doubt just multiply the denominators by each other). Make sure you then remember the golden rule of fractions – **whatever you do to the denominator, you must also do to the numerator** (the number of top). So you need to multiply the numerators by the same number as the denominator.

In the example of $\frac{1}{3} + \frac{1}{2}$ you have multiplied the 3 by 2 to get to 6 and the 2 by 3 to get to 6, so you need to do the same to the numerators:

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

This gives:

$$\frac{2}{6} + \frac{3}{6}$$

Step 3:

The final step is then simply to add or subtract across the **numerators**. So the final sum is:

$$\frac{2 + 3}{6} = \frac{5}{6}$$

Remember that the method is exactly the same for subtracting fractions. All you need to do differently is subtract the numerators at step 3.

Use what you have learnt here to have a go at the practice questions on the next page.

Adding and subtracting fractions – practice questions

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

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

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

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

5. $\frac{1}{3} + \frac{2}{7} =$

6. $\frac{3}{4} - \frac{1}{3} =$

7. $\frac{2}{3} - \frac{1}{4} =$

8. $\frac{5}{6} - \frac{1}{4} =$