Fractions – Lesson 11

We have spent some time learning how to add fractions, but we have not yet looked at subtraction. In fact, we can use the same to methods to subtract fractions. You can use whichever method you prefer.

Example: -

$$\frac{3}{4} - \frac{2}{3}$$

Method 1	Method 2
$\frac{3}{4} - \frac{2}{3} = \frac{9}{12} - \frac{8}{12} = \frac{11}{12}$ Turned both fractions into the equivalent fraction over 12 because 4 and 3 both go into 12 i.e. it is the lowest common multiple (LCM) of 4 and 3.	$\frac{3}{4} \times \frac{2}{3} = \frac{3 \times 3 - 2 \times 4}{4 \times 3} = \frac{9-8}{12} = \frac{1}{12}$ Kiss and smile method. Once you get used to it you may not need to write down the second stage $\left(\frac{3 \times 3 - 2 \times 4}{4 \times 3}\right)$

Now try these examples: -

1) $\frac{1}{3} - \frac{1}{2}$ **2)** $\frac{2}{5} - \frac{1}{3}$ **3)** $\frac{2}{3} - \frac{1}{7}$ **4)** $\frac{2}{3} + \frac{3}{7}$ **5)** $\frac{2}{5} - \frac{2}{7} +$

6) $\frac{3}{4} - \frac{2}{5}$ **7)** $\frac{4}{5} - \frac{1}{4}$ **8)** $\frac{3}{5} - \frac{1}{3}$ **9)** $\frac{4}{5} - \frac{2}{7}$ **10)** $\frac{3}{5} - \frac{1}{7}$

Sometimes it is necessary to simplify your answer but, with Method 1, this can often be avoided.

Example: -

$$\frac{7}{8} - \frac{1}{2}$$

Method 1	Method 2
$\frac{7}{8} - \frac{1}{2} = \frac{7}{8} - \frac{4}{8} = \frac{3}{8}$ Notice that 2 goes into 8 so we can use 8 on the bottom rather than 16. This means we don't need to simplify our answer	$\frac{7}{8} \times \frac{1}{2} = \frac{14-8}{8 \times 2} = \frac{6}{16} = \frac{3}{8}$ We need to remember to simplify our answer if we use this method.

Now try these examples. Make sure you have simplified your answer.

11) $\frac{7}{8} - \frac{3}{4}$ **12)** $\frac{3}{4} - \frac{3}{8}$ **13)** $\frac{3}{4} - \frac{1}{6}$ **14)** $\frac{3}{5} - \frac{1}{10}$ **15)** $\frac{3}{4} - \frac{3}{10}$

16) $\frac{2}{3} - \frac{2}{9}$ **17)** $\frac{5}{6} - \frac{2}{9}$ **18)** $\frac{5}{9} - \frac{1}{3}$ **19)** $\frac{8}{9} - \frac{2}{3}$ **20)** $\frac{5}{6} - \frac{1}{9}$