## Tuesday 16th June 2020

## Adding three and subtracting fractions by finding the lowest common denominator (LCD)

Steps to success

Example:

1. Find the lowest common denominator- what is the smallest number that the denominators can all go into? E.g. 30 can be divided by 3, 5, 2 and 6 and is the LCD


Tip: To make the calculation simpler, you can add all the positives first and subtract the negatives at the end. E.g. $10+15+5=30$ $30-12=18$
2. Convert all of the fractions into the equivalent fractions- example- using the LCD of 30 . All of these need to be converted into 30 ths. So for $1 / 3$ to get 3 to 30 (the denominator), we need to multiply by 10 , so we must multiply the numerator by 10 too. This would be $10 / 30$. Repeat this until you have converted all the fractions into equivalent fractions.
3. Once you have equivalent fractions we need to do the calculation (see below)


Find the total for each set of fractions below:

| $\frac{\text { Fractions }}{}$ | Working out | Total |
| :--- | :--- | :--- |
| $\frac{2}{10}+\frac{3}{4}+\frac{1}{10}+\frac{1}{3}$ |  |  |
| $\frac{3}{5}+\frac{1}{3}+\frac{1}{5}$ |  |  |
| $\frac{1}{10}+\frac{2}{5}+\frac{2}{10}+\frac{1}{3}$ |  |  |
| $\frac{3}{5}+\frac{1}{2}-\frac{3}{5}$ |  |  |
| $\frac{3}{10}+\frac{1}{4}-\frac{1}{10}+\frac{1}{3}$ |  |  |
| $\frac{1}{3}+\frac{1}{8}+\frac{2}{3}$ |  |  |
| $\frac{1}{3}+\frac{1}{3}-\frac{2}{10}+\frac{1}{8}$ |  |  |

