Addition of Whole Numbers and Fractions

To add whole numbers and Fractions, we have to follow the steps given below:

Step 1: Convert your whole number into a fraction. To do this, simply add a denominator of 1 to your whole number.

For example, $2 + \frac{3}{4}$. This will now become $\frac{2}{1} + \frac{3}{4}$

Step 2: Multiply your fractions to have the same denominator. Look at the original fraction in your problem, and use its denominator to multiply with your other fraction.

For example, we have $\frac{2}{1} + \frac{3}{4}$. The original fraction was $\frac{3}{4}$, so we have a denominator of 4 Multiply the numerator and denominator of $\frac{2}{1}$ by 4. Doing this, you will get $\frac{8}{4}$.

Step 3: Add both fractions. Now that you've got two fractions of the same denominator, add both fractions numerators, leaving the denominator as it is.

For example, we have $\frac{8}{4} + \frac{3}{4}$. Adding these, we will get $\frac{11}{4}$.

Step 4: Simplify your fraction. Convert your improper fraction to a mixed fraction. Doing this can get you either a mixed fraction, or a whole number. Both would be correct depending on the numerator and denominator divisibility.

Example, our final answer was $\frac{11}{4}$. Dividing the numerator by the denominator, we will get 2 and the remainder of 3. Your whole number stands alone, while your remainder will be put into the fraction replacing your old numerator. So, the answer is now $2\frac{3}{4}$.

Let us understand with an example:

Example: Add $\frac{7}{2} + 4$

Solution: Here $\frac{7}{2}$ is a fraction and 4 is a whole number.

We can write 4 as $\frac{4}{1}$.

Now making the denominators same, we get;

$\frac{7}{2}$ and $\frac{4}{1} \times \frac{2}{2} = \frac{8}{2}$

Add $\frac{7}{2}$ and $\frac{8}{2}$

$\frac{7}{2} + \frac{8}{2} = \frac{15}{2}$

Hence, the sum of $\frac{7}{2}$ and 4 is $\frac{15}{2}$.