

**Fractions**

**Adding or Subtracting Unlike Fractions**

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Addition of Unlike Fractions

* These fractions have different denominators.
* Firstly, the fractions are converted into equivalent fractions with a common denominator.
* To do so, the LCM of denominators is calculated.
* The fractions are converted into like fractions with a common denominator.
* The common denominator is retained
* The numerators are added.

Subtraction of Unlike Fractions

* These fractions have different denominators.
* Firstly, the fractions are converted into equivalent fractions with a common denominator.
* To do so, the LCM of denominators is calculated.
* The fractions are converted into like fractions with a common denominator.
* The common denominator is retained
* The numerators are subtracted.

Problem: Solve  2/3 + 1/7

Solution:

These fractions have different denominators.

Firstly, the fractions are converted into equivalent fractions with a common denominator.

To do so, the LCM of denominators is calculated.

So, the fractions are :

   =  2\*7/3\*7 and 1\*3/7\*3

   = 14/21 and  3/21

Adding the numerators we get :

= 14+3/21

= 17/21

So, the answer is 17/21.

Problem: A piece of wire 7/8 metre long broke into two pieces. One piece was ¼ metre long. How long is the other piece?



Solution:

Total length of the wire = 7/8 metre

Length of one piece of the wire = ¼ metre

Length of the remaining piece of the wire = 7/8 – ¼

Since these are unlike fractions, they are converted into equivalent fractions with common denominator.

The LCM of 8 and 4 is 8. 7/8 already has the denominator of the value 8. ¼ can be converted into 2/8 by multiplying both the numerator and denominator by 2.

Now, we get :

7/8 – ¼

= 7/8 – 2/8

= (7-2)/8

=5/8 metre

Hence the length of the remaining piece of wire is 5/8 metre