Addition and Subtraction of unlike Fractions

To add or subtract unlike fractions, we first convert them into like fractions and then add or subtract as usual.

For adding or subtracting unlike fractions, we follow these steps.

Step 1: Find the LCM of denominators of the given fractions.

Step 2: Convert unlike fractions into like fractions by making LCM as their denominator.

Step 3: Add or subtract the like fractions.

Let us understand with some examples:

Example 1: Add: $3\,{}^{1}/_{3}$ and $1\,{}^{3}/_{4}$

Solution:

Step1: Convert the given mixed fractions to improper fractions.

3 ⅓ = 10/3

1 ¾ = 7/4

Step 2: Make the denominators same by taking the LCM and multiplying the suitable fractions for both.

LCM of 3 and 4 is 12.

So, 10/3 = (10/3) × (4/4) = 40/12

7/4 = (7/4) × (3/3) = 21/12

Step 3: Take the denominator as common and add numerators. Then, write the final answer.

(40/12) + (21/12) = (40 + 21)/12 = 61/12

Therefore, 3 ⅓ + 1 ¾ = 61/12 = $5\,{}^{1}/_{12}$

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☞ **Example 2:** Subtract $\frac{4}{5}$ from $\frac{13}{15}$.

Solution: LCM of 15 and 5 is 15

Now, $\frac{4}{5} = \frac{4\times3}{5\times3} = \frac{12}{15}$

Hence, $\frac{13}{15} - \frac{4}{5} = \frac{13}{15} - \frac{12}{15} = \frac{13-12}{15} = \frac{1}{15}$