Addition and Subtraction of Like Fractions

Understanding Addition and Subtraction of Like Fractions

- Like fractions have the same denominator.
- In like fractions, only the numerators are added or subtracted, and the denominator remains the same.
- Always check if the denominators are the same before performing addition or subtraction.
- After solving, if the answer is an improper fraction, it can be converted into a mixed fraction.

Steps to Add or Subtract Like Fractions

Step 1: Check if the denominators are the same

Step 2: Add or subtract the numerators

Step 3: Keep the denominator same

Step 4: Simplify the fraction if needed

Mixed Examples with Solutions

Example: $\frac{2}{5} + \frac{1}{5}$

Solution: 2 + 1 = 3, denominator = 5 → Answer = $\frac{3}{5}$

Example: $\frac{4}{9} - \frac{2}{9}$

Solution: 4 − 2 = 2, denominator = 9 → Answer = $\frac{2}{9}$

Example: $\frac{5}{8} + \frac{2}{8}$

Solution: 5 + 2 = 7, denominator = 8 → Answer = $\frac{7}{8}$

Example: $\frac{6}{7} - \frac{3}{7}$

Solution: 6 − 3 = 3, denominator = 7 → Answer = $\frac{3}{7}$

Example: $\frac{7}{10} + \frac{5}{10}$

Solution: 7 + 5 = 12, denominator = 10 → Answer = $\frac{12}{10} = 1\frac{2}{10} = 1\frac{1}{5}$ (after simplification)

Summary Points

- Like fractions have the same denominator.
- To add or subtract them, only the numerators are changed.
- The denominator stays the same.
- Always simplify the final answer if possible.
- Understanding this helps in dealing with parts of the same whole in daily life situations.