Subtraction of a Fraction from a Whole

Understanding the Topic

- Subtracting a fraction from a whole number means removing a part from the full.
- To subtract a fraction from a whole number, we convert the whole number into a fraction with the same denominator.
- This is done by writing the whole number as a fraction with denominator same as the given fraction.
- After that, subtract the numerators and write the result over the same denominator.
- The answer can be simplified or written as a mixed number if needed.

Examples with Solutions

Example:

Subtract $\frac{1}{4}$ from 1

Convert 1 into $\frac{4}{4}$

$\frac{4}{4} - \frac{1}{4} = \frac{3}{4}$

Answer: $\frac{3}{4}$

Example:

Subtract $\frac{2}{5}$ from 1

Convert 1 into $\frac{5}{5}$

$\frac{5}{5} - \frac{2}{5} = \frac{3}{5}$

Answer: $\frac{3}{5}$

Example:

Subtract $\frac{3}{8}$ from 2

Convert 2 into $\frac{16}{8}$

$\frac{16}{8} - \frac{3}{8} = \frac{13}{8}$

$\frac{13}{8} = 1\frac{5}{8}$

Answer: $1\frac{5}{8}$

Example:

Subtract $\frac{5}{6}$ from 3

Convert 3 into $\frac{18}{6}$

$\frac{18}{6} - \frac{5}{6} = \frac{13}{6}$

$\frac{13}{6} = 2\frac{1}{6}$

Answer: $2\frac{1}{6}$

Example:

Subtract $\frac{7}{10}$ from 2

Convert 2 into $\frac{20}{10}$

$\frac{20}{10} - \frac{7}{10} = \frac{13}{10}$

$\frac{13}{10} = 1\frac{3}{10}$

Answer: $1\frac{3}{10}$

Summary Points

- To subtract a fraction from a whole number, convert the whole number into a like fraction.
- Keep the same denominator as the given fraction.
- Subtract the numerators and keep the denominator the same.
- Convert improper fraction into a mixed number if required.
- Useful in real life when taking away part of a full quantity.