Fractional Numbers

What is a Fraction?

- A fraction shows a part of a whole.

- It has two numbers:

  o The top number is the numerator – it tells how many parts we have.

  o The bottom number is the denominator – it tells how many equal parts the whole is divided into.

  Example: In $\frac{1}{4}$, 1 is the numerator and 4 is the denominator.

  Fraction = $\frac{Numerator}{Denominator}$

Understanding with Shapes

- If a pizza is cut into 4 equal parts and we eat 1 part, we ate $\frac{1}{4}$ of the pizza.

- If a chocolate bar is broken into 2 pieces and you take 1, you took $\frac{1}{2}$ of the chocolate.

Types of Fractions (Basic)

- **Proper Fraction** – Numerator is smaller than Denominator (Example: $\frac{2}{5}$)

- **Improper Fraction** – Numerator is bigger than Denominator (Example: $\frac{5}{3}$)

- **Unit Fraction** – Numerator is always 1 (Example: $\frac{1}{6}, \frac{1}{2}$)

Easy Examples with Solutions
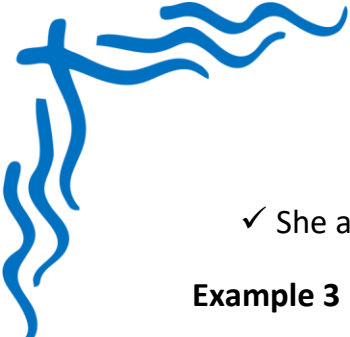
Example 1

➢ **Shade 1 out of 4 parts of a circle**

Fraction: $\frac{1}{4}$

✓ Divide the circle into 4 equal parts. Shade 1 part. This shows $\frac{1}{4}$ is shaded.

Example 2

➢ **Riya ate 2 pieces of a cake cut into 8 equal pieces**

Fraction: $\frac{2}{8}$

✓ She ate 2 parts out of 8, so the fraction is $\frac{2}{8}$.

Example 3

➤ **There are 3 red balls out of 5 total balls**

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

✓ The number of red balls is 3, total balls is 5. So the fraction is $\frac{3}{5}$.

Example 4

➤ **Color 4 out of 6 equal parts in a rectangle**

Fraction: $\frac{4}{6}$

✓ Divide the rectangle into 6 parts and color 4. This shows the fraction $\frac{4}{6}$.

Example 5

➤ **Out of 10 students, 7 are girls**

Fraction: $\frac{7}{10}$

✓ Girls are 7 out of 10 students. So, the fraction is $\frac{7}{10}$.

Summary Points

- A fraction shows a part of a whole
- Top number (numerator) shows how many parts we have
- Bottom number (denominator) shows total parts
- **Fractions are used in real life:** food, sharing, dividing
- **Common types:** proper, improper, and unit fractions
- Drawing and coloring help us understand fractions better