## **Problems on Multiplication**

## **Understanding the Topic**

- Word problems on multiplication of fractions help us apply the concept in reallife situations.
- We multiply a fraction with a whole number or another fraction to find a part of a part.
- Carefully read the problem, understand what is being asked, and identify the operation needed.
- Convert all values into fractions if necessary.
- Always simplify the answer and write in mixed number form if required.

# **Examples with Solutions**

## Example:

Riya drank  $\frac{2}{5}$  of a bottle of juice. Each bottle holds 1 liter. How much juice did she drink?

$$\frac{2}{5} \times 1 = \frac{2}{5}$$

**Answer:** She drank  $\frac{2}{5}$  liter of juice

## **Example:**

A packet contains  $\frac{3}{4}$  kg of rice. How much rice is there in 4 such packets?

$$4 \times \frac{3}{4} = \frac{12}{4} = 3$$

Answer: 3 kg of rice

## Example:

One chocolate bar weighs  $\frac{2}{3}$  kg. What is the weight of 5 such bars?

$$5 \times \frac{2}{3} = \frac{10}{3} = 3\frac{1}{3}$$

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

#### **Example:**

A boy read  $\frac{1}{2}$  of a book on Monday and  $\frac{1}{3}$  of the remaining on Tuesday. What part of the book did he read on Tuesday?

Remaining = 
$$1 - \frac{1}{2} = \frac{1}{2}$$
  
 $\frac{1}{3}of \frac{1}{2} = \frac{1}{3} \times \frac{1}{2} = \frac{1}{6}$ 

**Answer:** He read  $\frac{1}{6}$  of the book on Tuesday

## Example:

A jug can hold 7 liters of water. Rani filled  $\frac{2}{7}$  of it. How much water did she pour?

$$\frac{2}{7} \times 7 = \frac{14}{7} = 2$$

#### Answer: 2 liters

#### **Summary Points**

- Multiplication of fractions is used in real-life to find parts of quantities.
- Convert whole numbers to fractions when needed.
- Multiply numerators and denominators, then simplify.
- Read word problems carefully and understand what is asked.
- Use mixed numbers for final answers if the result is improper.