# **Division of a decimal by Another Decimal**

#### **Understanding the Topic**

- When we divide a decimal number by another decimal, we first make the divisor (the number we are dividing by) a whole number.
- We do this by multiplying both the dividend and the divisor by 10, 100, or 1000, depending on how many digits are after the decimal.
- After converting the divisor to a whole number, we divide as usual.
- This makes the division easier and avoids working with decimals in the divisor.

## Steps to Divide a Decimal by Another Decimal

- **Step 1:** Count how many digits are after the decimal point in the divisor.
- **Step 2:** Multiply both the dividend and the divisor by 10, 100, or 1000 to make the divisor a whole number.
- **Step 3:** Divide the new numbers as usual.
- **Step 4:** Place the decimal point in the answer at the correct position.

## **Examples with Solutions**

#### 1. Divide 4.5 ÷ 0.5

Multiply both by  $10 \rightarrow 45 \div 5 = 9$ 

Answer: 9

2. Divide 2.4 ÷ 0.2

Multiply both by  $10 \rightarrow 24 \div 2 = 12$ 

**Answer:** 12

3. Divide 1.25 ÷ 0.25

Multiply both by  $100 \rightarrow 125 \div 25 = 5$ 

Answer: 5

4. Divide 6.3 ÷ 0.3

Multiply both by  $10 \rightarrow 63 \div 3 = 21$ 

**Answer:** 21

#### 5. Divide 0.84 ÷ 0.7

Multiply both by  $10 \rightarrow 8.4 \div 7 = 1.2$ 

**Answer:** 1.2

## **Summary Points**

- To divide a decimal by another decimal, make the divisor a whole number.
- Multiply both numbers by 10, 100, or 1000 depending on decimal places.
- Then divide as usual.
- Always place the decimal point correctly in the final answer.
- Example:  $3.6 \div 0.6 = 6$ .