

Comparing Quantities

Ratio: - Compare two quantities of the same kind and what multiple is called ratio

Ratio of 6 to 3
 $= 6:3 = \frac{6}{3}$

Note

1. The two numbers which form the ratio are called its terms
2. The first number is called the antecedent
3. The second number is called the consequent

Ratio = $\frac{\text{Antecedent} \rightarrow 3}{\text{Consequent} \rightarrow 5}$ } - terms.

Equivalent Ratios: - Two ratios are said to be equivalent if the corresponding fractions are equal.

$$\frac{20}{8}, \frac{10}{4}, \frac{40}{16}$$

i.e., $\frac{20}{8} = \frac{10}{4} = \frac{40}{16} = \frac{5}{2}$

These are equivalent ratios

Proportion:- When two ratios are equal,
the four terms of the ratios are said
to be in proportion.

$$\frac{a}{b} = \frac{c}{d}$$

$$\Rightarrow \underline{a \times d} = b \times c$$

Product of extremes = Product of means.

Ex 4 bowls cost ₹80 what should
be the cost of 5 such bowls?

No of bowls	4	5
Cost of bowls	₹80	?

Now $\frac{4}{₹80} = \frac{5}{x}$

$$4 \times x = 5 \times ₹80$$

$$x = \frac{5 \times ₹80}{4} = ₹100$$

∴ Cost of 5 such bowls = ₹100 Ans

Do your self.

- ① 15 litres of oil cost ₹750. What would be the cost of 10 litres of oil?
- ② A car can go 150 km with 25L of petrol. How far will it go with 30 L of petrol?