

# Practice and Revision - Ratio and Proportion

Chapter 11: Ratio and Proportion · Topic 2

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## Key Concept

A ratio compares two quantities, written as  $a:b$ , showing the relative size of one quantity compared to another.

A proportion states that two ratios are equal, like  $a:b = c:d$ , useful for solving problems involving scaling.

To solve a proportion, we can use cross multiplication: if  $a:b = c:d$ , then  $a \times d = b \times c$ .

Ratios and proportions are used in real life for recipes, map scales, and comparing quantities like speed or price.

## Quick Revision Notes

- Ratio: compares two quantities,  $a:b$ .
- Shows relative size of quantities.
- Proportion: two ratios are equal,  $a:b=c:d$ .
- Useful for scaling problems.
- Solve via cross multiplication.
- $a:b=c:d$  means  $a \times d = b \times c$ .
- Used in recipes, map scales.
- Also comparing speed, price.

## Practice Questions

- 1 Simplify the ratio 15:20.
- 2 Solve for  $x$ :  $2:3 = x:12$ .
- 3 Write a ratio comparing two objects in your room.
- 4 Solve a recipe scaling problem using ratio.
- 5 Use cross multiplication to solve a proportion.
- 6 Discuss a real-life use of ratios.