

Ratio and sharing

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Foundation and Higher • Lesson resources

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Purpose

Interpret ratios, simplify them and share quantities using equal parts while distinguishing part-to-part from part-to-whole.

Vocabulary

Ratio: ordered comparison of quantities. Part-to-part: compares one component with another.

Part-to-whole: compares a component with the total. Equal parts: units of a common size used to share.

Why the method works

Red:blue = 2:3 means for every two equal red parts there are three equal blue parts. There are five parts altogether, so red is $\frac{2}{5}$ of the whole, not $\frac{2}{3}$. Scaling both terms by the same positive factor preserves the ratio.

Method and checking

Keep the named order and convert quantities to matching units before simplifying. To share a total, add ratio parts, divide the total by that sum, then multiply for each share. If one share or the difference is given, match it to its number of parts first.

Common errors and next attempt

If red is called $\frac{2}{3}$ of the whole for 2:3, draw five equal parts. If learners divide the total by only one ratio term, label all parts. If units differ, convert first. Recheck £40 shared 3:5 gives £15 and £25.