

1.2.4 Ratio Parts

Name: _____ Class: _____ Date: _____

KEY WORDS ratio

<!-- Session 2 native-skill companion -->

Objective

Practise ratio parts within the labelled native lessons. Public original tasks; locally authored answer guidance.

1 Key knowledge and worked examples

■ Ratio shares and fraction operators · Foundation

Add the ratio parts to find the whole: 2:5 has 7 equal parts. Divide the total by 7, then multiply by the required part count. A fraction acts as a multiplier; a percentage p acts as p/100. Keep part-to-part and part-to-whole comparisons separate.

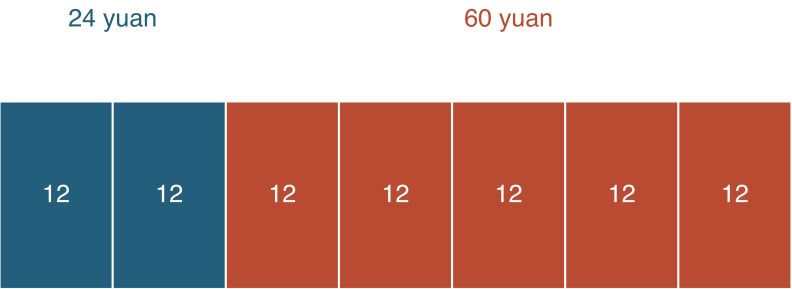
$$84 \times \frac{2}{2 + 5} = 24$$

Each part is 84/7=12 yuan, giving shares 24 and 60. The first team has 2/7 of the whole, while its share is 2/5 of the other share. A 3/4 portion of 28 is 21. A 120% amount of 35 is 1.2×35=42, so percentages may exceed 100.

A ratio 2:5 does not give the first share as 2/5 of the total. The total has 7 parts. A multiplier over 1 increases a positive quantity; it does not automatically mean a probability.

AQA N11/N12 and R3–R8 link ratio parts to fractions and operators. Check the shares add to the stated total and simplify a ratio by dividing every part by the same positive factor.

Ratio 2:5 has seven total parts



Original native-lesson illustration; labels belong to its worked example.

2 Practice

2.1 (Foundation) Find the smaller share of 84 in ratio 2:5.

2.2 (Foundation) Find 3/4 of 28.

2.3 (Foundation) Find 120% of 35.

3 Exam-style questions

3.1 Decide whether this claim is true. Justify with a concrete calculation or counterexample: For a 2:5 division, the first share is always $\frac{2}{5}$ of the whole.

Solutions

2.1 There are 7 parts; $84/7 \times 2 = 24$.

2.2 $28/4 \times 3 = 21$.

2.3 $120/100 \times 35 = 42$.

3.1 False. The whole has $2+5=7$ parts. Dividing 700 gives first share $(2/7) \times 700 = 200$; $2/5$ of 700 would be 280.

Local review guidance: show the chosen method; give the checked result; explain the condition or failed shortcut. This is authored classroom guidance.