Ratios and measurement models

Learn and practise | Free preview

A sample from this topic. The complete topic collection contains three different resources and worked solutions.

Read the explanation and worked example. Show your working; use a calculator only where asked.

What you will practise

- Share quantities in ratios and model comparisons of lengths, areas and volumes.
- Explain a method and check the reasonableness of a result.

Useful starting skills: Use the prerequisite operations and representations shown in the worked example.

A ratio compares quantities in the same units. In the ratio 2:3 there are 5 parts altogether. Multiply the value of one part to find each share.

Ratios may compare lengths, areas or volumes directly. State which quantities are being compared; a length ratio does not automatically equal an area ratio.

Worked example

Share 84 m of ribbon in the ratio 3:4.

There are 7 parts; each is 84/7 = 12 m.

Shares are 3 × 12 and 4 × 12.

Answer: 36 m and 48 m

Try it yourself

Name: _____ Date: _____

1. Simplify the ratio 18:30.

2. Share $72 in the ratio 5:3.

Answers and explanations

Check the method as well as the final answer. An alternative correct method is also valid.

1. 3:5

Divide both terms by 6.

2. $45 and $27

One part is $9.

Curriculum reference: VC2M7N09; VC2M7M06

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