Guide to:
Writing and simplifying ratio

maths Links

Explanation:

A ratio compares the sizes of parts to each other. Write the numbers in the exact order stated in the question, separated by a colon (**:**). If quantities have different units (such as cm and m, or g and kg), convert them into the **same unit** before simplifying.

To simplify a ratio to its simplest form, divide all parts by their **highest common factor (HCF)** until the parts are whole numbers with no common factor. To write a ratio in the form **1 : *n*** or ***n* : 1**, divide both sides by the number that needs to become **1**.

Example 1: Simplify the ratio **45 minutes : 2 hours** fully.

Solution:

Convert 2 hours into minutes: 2 × 60 = **120 minutes**
Ratio in same units = **45 : 120**
Divide both sides by HCF (**15**):
45 ÷ 15 = 3 and 120 ÷ 15 = 8
Answer: 3 : 8

Example 2: Write the ratio **5 : 18** in the form **1 : *n***.

Solution:

To make the left-hand side equal to 1, divide both parts by **5**:
Left side: 5 ÷ 5 = **1**
Right side: 18 ÷ 5 = **3.6**
Answer: 1 : 3.6

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