Simplifying and sharing a ratio

Put quantities in the same units before simplifying the ratio.

Share €84 in the ratio 3 : 4.

$3+4=7$	There are seven equal parts altogether.
$84\div7=12$	Find the value of one part.
$3(12)=36,\quad 4(12)=48$	Multiply by the number of parts in each share.

€36 and €48

Check

The shares must add back to €84. The larger share goes with the larger ratio number.

Direct proportion and unit rates

Find the amount for one unit, then scale to the number of units you need.

Five identical notebooks cost €12.50. What do eight cost?

$12.50 \div 5 = 2.50$	Find the price of one notebook.
$8 \times 2.50 = 20$	Multiply the unit price by eight.
€20	

A map scale is 1 : 25,000. What does 6 cm represent?

$6 \times 25000 = 150000$	The result is in centimetres.
$150000 \div 100000 = 1.5$	Convert centimetres to kilometres.
$1.5\,\text{km}$	

JUNIOR CYCLE HIGHER LEVEL · CHAPTER PRACTICE

Ratio and Proportion

Try the questions before opening the separate answer key. Show one step per line.

6.1 · Fluency

Simplify 48 : 72.

6.2 · Variation

Share €105 in the ratio 2 : 5.

6.3 · Choose a method

Six notebooks cost €10.50. What would 14 cost at the same unit price?

Check your work: are the sign, units and level of accuracy appropriate?