

L065 · GCSE Mathematics 1MA1 · 60 minutes

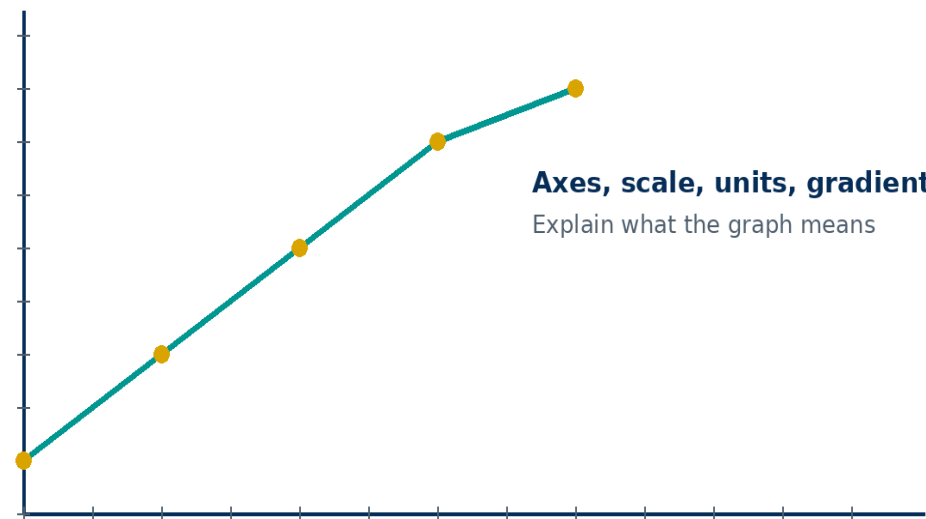
The goal

Solve direct and inverse proportion problems and represent relationships.

Connect & Check

Complete the starter in your workbook. Retrieve the prior skill, then identify one likely error before you use today's method.

L065 Direct and inverse proportion



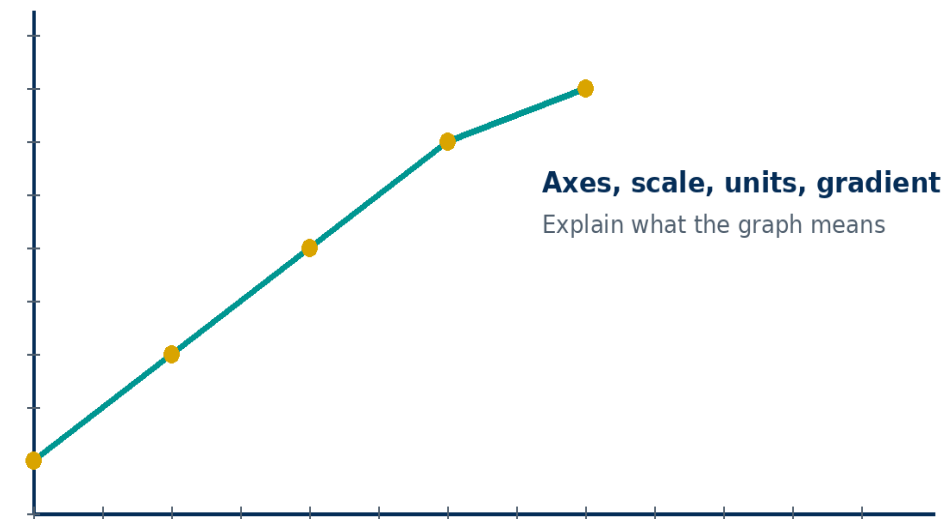
Objective: Solve direct and inverse proportion problems and represent relationships.

Compare your method with a partner. Agree on one reliable step and one check.
Be ready to explain your reasoning, not just your answer.

Build the method

Use the worked model to use tables, graphs and equations; distinguish proportional from merely increasing relationships. Record the key step and one check that proves the answer.

L065 Direct and inverse proportion



Objective: Solve direct and inverse proportion problems and represent relationships.

Choose your route

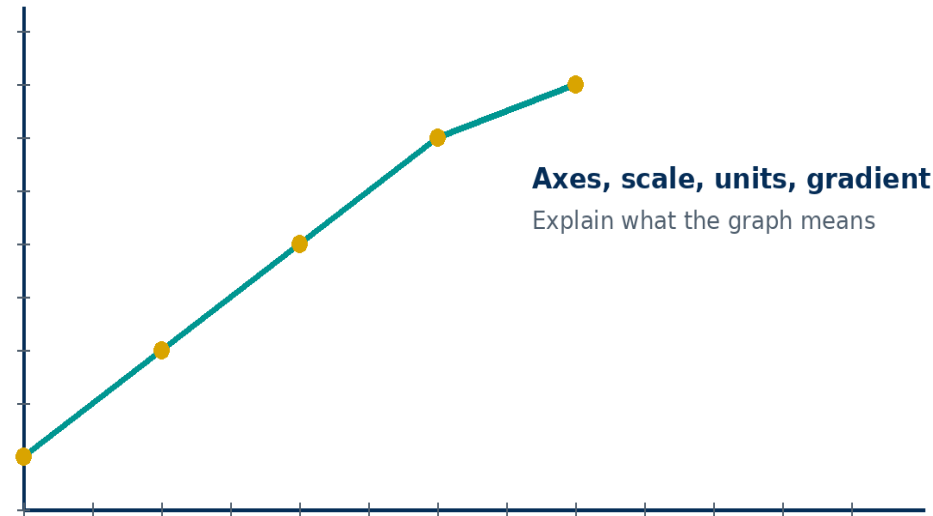
Choose your route: A - visual model, B - method first, or C - explain first.
Whichever route you choose, your final answer must prove the lesson objective.

Guided practice

y is inversely proportional to x^2 .
If $y=12$ at $x=2$, find y at $x=4$.

Apply

L065 Direct and inverse proportion



Objective: Solve direct and inverse proportion problems and represent relationships.

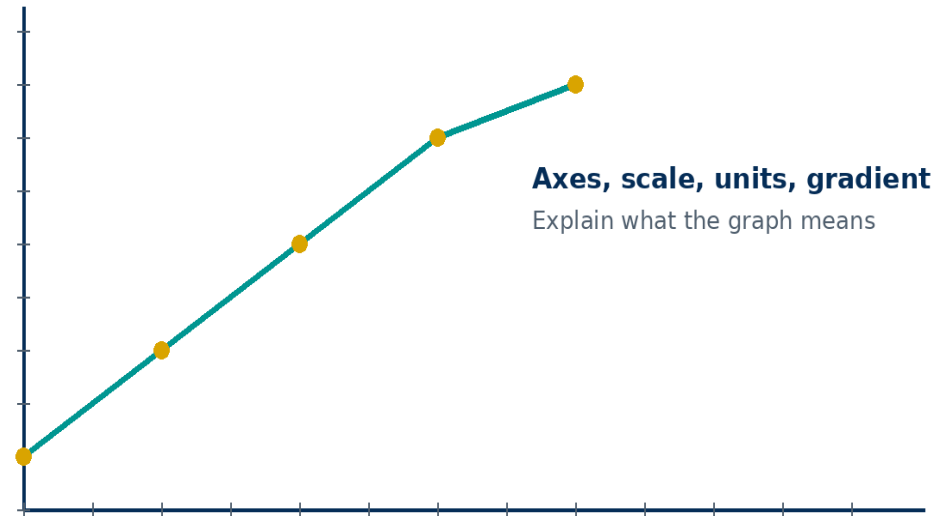
7/11

Independent practice

A graph through the origin appears curved upward. Can y be directly proportional to x ? Explain.

Apply

L065 Direct and inverse proportion



Axes, scale, units, gradient

Explain what the graph means

Objective: Solve direct and inverse proportion problems and represent relationships.

8/11

Exam-style practice

Solve an exam-style problem involving direct and inverse proportion. Show working, include a check and interpret your answer.

Recall & Review

Complete a fresh question without notes. Check your answer, correct one error if needed, and record the next practice step.

Before next lesson

Correct one error, record one target and complete the flipped learning task.

L065 Recall & Review

Direct and inverse proportion

Fresh evidence: prove the objective

Solve a new question without prompts. Explain one check, then correct one error in your working.

Objective: Solve direct and inverse proportion problems and represent relationships.

Write the next practice step before you leave. It must test the method again, not simply copy today's example.

Feedback language

Use the full phrases before the abbreviations.

What Went Well (WWW)

I identified the correct reference quantity, ratio, rate or multiplier and kept the units and proportional relationship clear.

Identify the mathematical method, representation, reasoning or check that improved.

Even Better If (EBI)

I will state the whole or reference quantity, show the multiplier or unit-rate step and check whether the result is sensible in context.

Set one precise next-step action and test it on a fresh question.

Extension route

Choose this route only after the core evidence is secure.

Stretch

y is inversely proportional to x^2 . If $y=12$ at $x=2$, find y at $x=4$.

Deep challenge

A graph through the origin appears curved upward. Can y be directly proportional to x ? Explain.

Explain your reasoning clearly enough that another learner could check it.