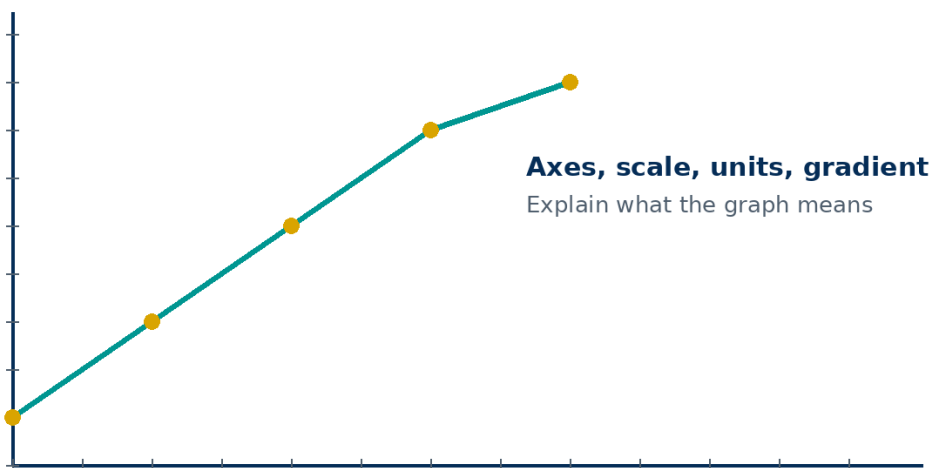


Learner workbook: Direct and inverse proportion

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

Calculator condition: Non-calculator core; calculator optional only for checking where labelled.

L065 Direct and inverse proportion



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

Connect & Check

- State the objective and timeline. Retrieve cumulative checkpoint 4 and feedback or a prerequisite. Diagnose a common error before modelling.
- Write one starting question you want answered today.

Choose your route

Route A: Visual Use a diagram, graph, table or annotation first.	Route B: Method Use a worked method, formula or calculation chain first.	Route C: Explain Start with words: what is known, what is changing, and why.
--	--	--

Share

- Pairs compare methods or predict a result for direct and inverse proportion. Ask for a reason, not only an answer.

Present

- Use tables, graphs and equations; distinguish proportional from merely increasing relationships

Apply: supported to independent

Recall: Retrieve the key fact or method needed for direct and inverse proportion.

Working: _____

Check/explanation: _____

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

Working: _____

Check/explanation: _____

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

Working: _____

Check/explanation: _____

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

Working: _____

Check/explanation: _____

Recall & Review

- Revisit the objective. Learners solve a fresh item without prompts, explain a check, correct one error and record the next practice.

WWW: _____ EBI: _____

Recall & Review: feedback and extension integration

Lesson L065: Direct and inverse proportion

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

Timing for a 60-minute lesson

0-7 Connect & Check; 7-14 Share; 14-25 Present/model; 25-44 Apply route choice/practice; 44-52 independent exam-style check; 52-60 Recall & Review, WWW/EBI and next step.

Recall & Review evidence

At the end of the lesson, solve a fresh question without prompts, explain one check, correct one error and record the next practice step.

What Went Well (WWW)

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

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.

Integrated stretch and deep challenge

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.

My next-step response
