

L066 · GCSE Mathematics 1MA1 · 60 minutes

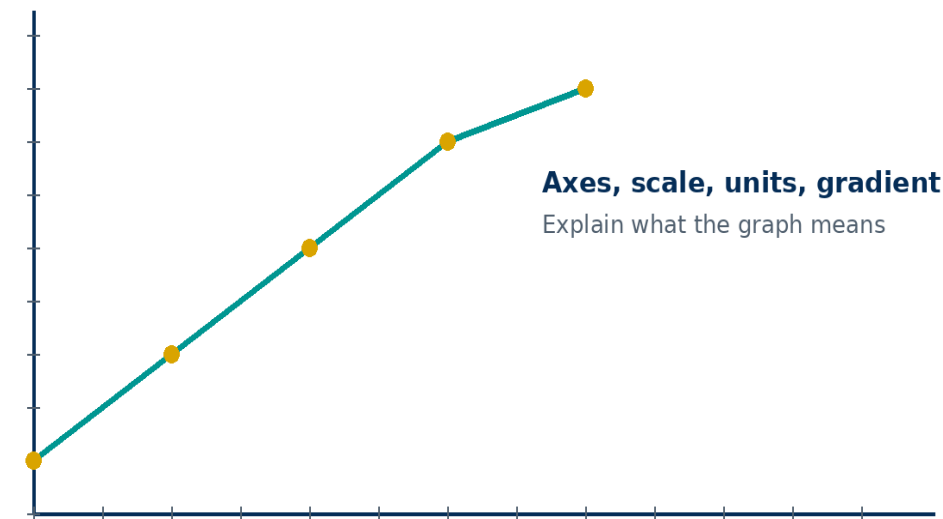
The goal

Use speed, density and pressure with consistent units.

Connect & Check

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

L066 Speed density and pressure



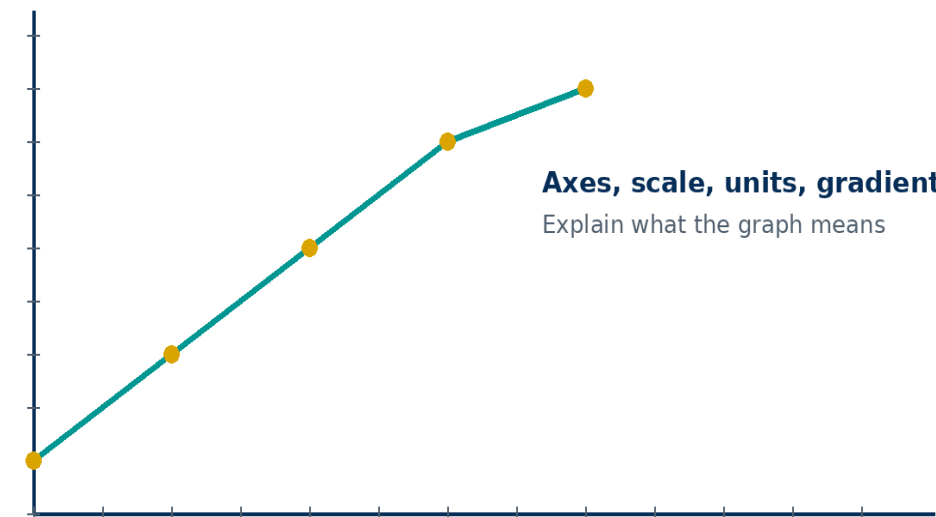
Objective: Use speed, density and pressure with consistent units.

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 rearrange compound-measure relationships; estimate before calculator work. Record the key step and one check that proves the answer.

L066 Speed density and pressure



Objective: Use speed, density and pressure with consistent units.

Choose your route

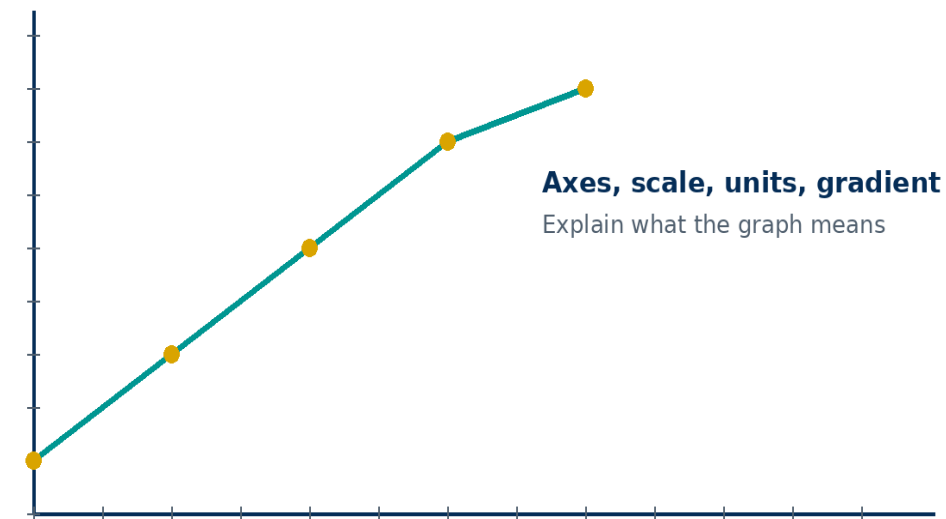
Choose your route: A - visual model, B - method first, or C - explain first.
Whichever route you choose, your final answer must prove the lesson objective.

Guided practice

A solid has density 7.8 g/cm^3 and volume 25 cm^3 . Find mass.

Apply

L066 Speed density and pressure



Objective: Use speed, density and pressure with consistent units.

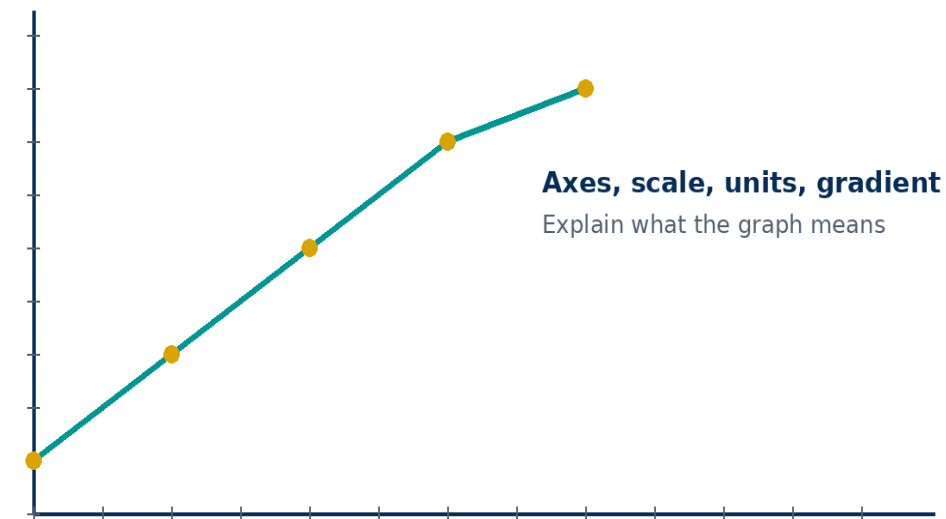
7/11

Independent practice

Pressure doubles while force is constant. What happened to contact area? Explain algebraically.

Apply

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8/11

Exam-style practice

Solve an exam-style problem involving speed density and pressure. 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.

L066 Recall & Review

Speed density and pressure



Fresh evidence: prove the objective

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

Objective: Use speed, density and pressure with consistent units.

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

A solid has density 7.8 g/cm^3 and volume 25 cm^3 . Find mass.

Deep challenge

Pressure doubles while force is constant. What happened to contact area? Explain algebraically.

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