

Geometry checkpoint and feedback

Pearson Edexcel GCSE Mathematics 1MA1

L032 • Geometry and measures

60 minute lesson | learner resources

The goal and the evidence

Connect & Check → Share → Present → Apply → Recall & Review

Use independent geometry evidence to identify misconceptions, complete a targeted repair and demonstrate transfer.

Explain, apply and check independently.

Starting-point diagnostic

R1–R3 • Attempt without notes

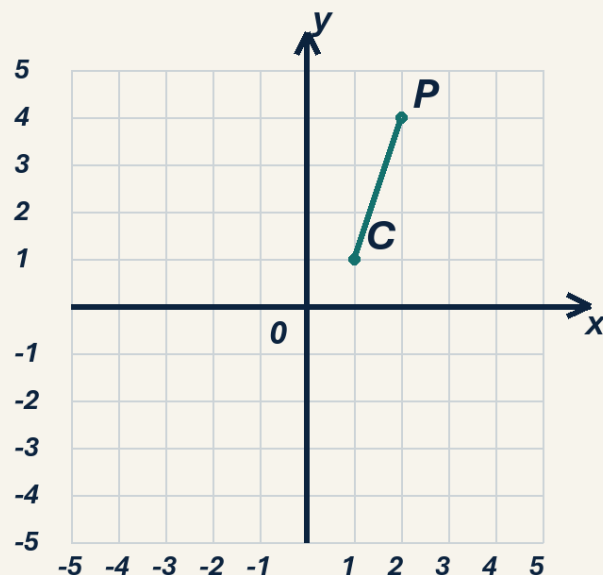
Find a co-interior partner of 118° on parallel lines.

Reflect $(5,1)$ in $x=2$.

At scale 1:50 000, convert 6 cm to km.

See the geometry

Use the diagram and practical sheet.



Teaching sketch • not to scale

*Enlarge P from centre C
using scale factor 2.*

*Sketch P' beyond the grid;
calculate its coordinates.*

Worked example and your turn

D1 • Explain each step

Model repair: co-interior 130° leaves 50° , not 130° .
Now find the partner of 107° .

Try the paired problem; check independently.

Worked example and your turn

D2 • Explain each step

Model repair: reflect $(4, 2)$ in $x=1$ gives $(-2, 2)$. Now reflect $(6, -1)$ in $x=2$.

Try the paired problem; check independently.

Worked example and your turn

D3 • Explain each step

Model repair: reverse 230° is 050° , not 130° . Now reverse 285° .

Try the paired problem; check independently.

Worked example and your turn

D4 • Explain each step

Model repair: 1 cm:2 km means 7 cm is 14 km. Now 1 cm:3 km; find real distance for 4.5 cm.

Try the paired problem; check independently.

A method you can explain

Name the fact or construction at each step.

Check against the original question.

Diagnostic pause

Choose and explain before moving on.

A learner finds 60° but writes angles around a point total 180° . Is the reasoning secure? A yes, B no.

Use your explanation to decide the next step.

Careful variation

A1 • Show your reasoning

Triangle angles $42^\circ, 68^\circ, x^\circ$; regular hexagon interior y° ; co-interior partner z° of 72° . Find x, y, z with reasons.

Explain your decisions and check the result.

Independent application

A2 • Show your reasoning

Enlarge $(3,2)$ by $k=2$ about $(1,1)$, then describe why $(6,4)$ is wrong.

Explain your decisions and check the result.

Use the method in context

A3 • Show your reasoning

At scale 1:25 000 a path is 12 cm long on bearing 065° . Find real length and reverse bearing.

Explain your decisions and check the result.

Intentional practice feedback

Read after attempting A3

3 km; 245° .

Correct one step and explain the change.

A claim to test

C1 • Show your reasoning

A learner scores full retrieval points immediately after reading feedback. What further evidence would support retained learning?

Explain your decisions and check the result.

Deepen the reasoning

C2 • Show your reasoning

Two triangles have angles $40^\circ, 60^\circ, 80^\circ$. Can you claim congruence? Give a reason or counterexample.

Explain your decisions and check the result.

Retrieval without notes

Q1–Q3 • Numeric answers

Co-interior partner of 118° , degrees

Regular hexagon interior, degrees

Reverse bearing 285° , numeric degrees

Retrieval without notes

Q4–Q6 • Numeric answers

km for 6 cm at 1:50 000

x of reflection (5,1) in $x=2$

Triangle third: $42^\circ, 68^\circ$, degrees

Independent exit evidence

P1 • Without notes • Teacher review

A regular polygon has exterior angle 30° . Find sides and interior angle. [2]

Show working and check your answer.

Independent exit evidence

P2 • Without notes • Teacher review

Enlarge $(2,4)$ by $k=2$ about $(1,1)$, showing displacement. [2]

Show working and check your answer.

Feedback and next steps

P3 • Completion is not mastery

Explain one error you have corrected.

Set a fresh question and a delayed check.

Before the next lesson

L033: Perimeter and compound area

Complete F1 tomorrow without notes.

Attempt F2 and bring one question.

Optional stretch

A regular hexagon has side 6 cm. Find perimeter and each exterior angle.

Show a method. Explain a check or counterexample.

Optional deep challenge

A shape is enlarged by factor 3 and its original perimeter is 18 cm. A learner says new area is three times. Correct the reasoning.

Show a method. Explain a check or counterexample.

L032 Recall & Review

Geometry checkpoint and feedback



Fresh evidence: prove the objective

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

Objective: Use independent geometry evidence to identify misconceptions, complete a targeted repair and demonstrate transfer.

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 used my working and assessment evidence to identify the exact mathematical step that was secure and the specific misconception that needs attention.

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

Even Better If (EBI)

I will correct one precise step, explain why the correction works and complete a fresh delayed question without the original scaffold.

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 regular hexagon has side 6 cm. Find perimeter and each exterior angle.

Deep challenge

A shape is enlarged by factor 3 and its original perimeter is 18 cm. A learner says new area is three times. Correct the reasoning.

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