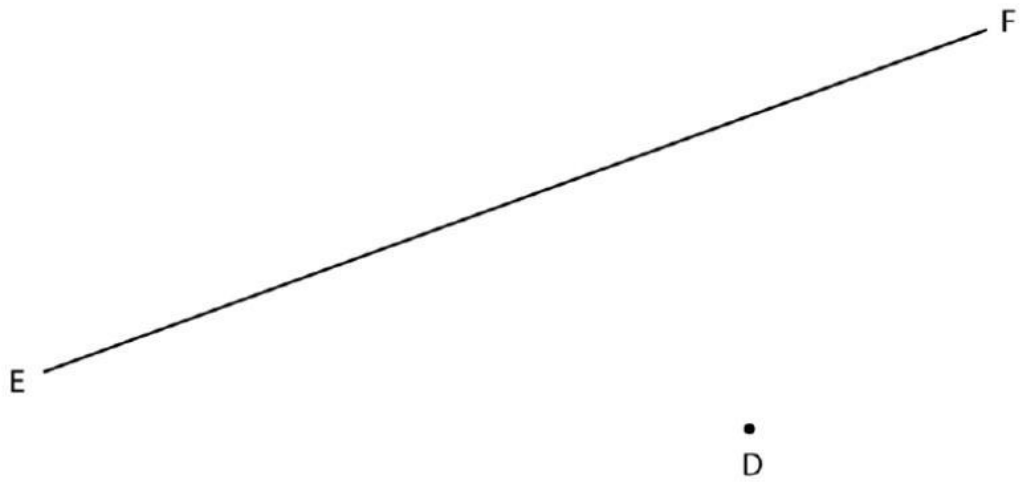
G13...Construction - Compass Work

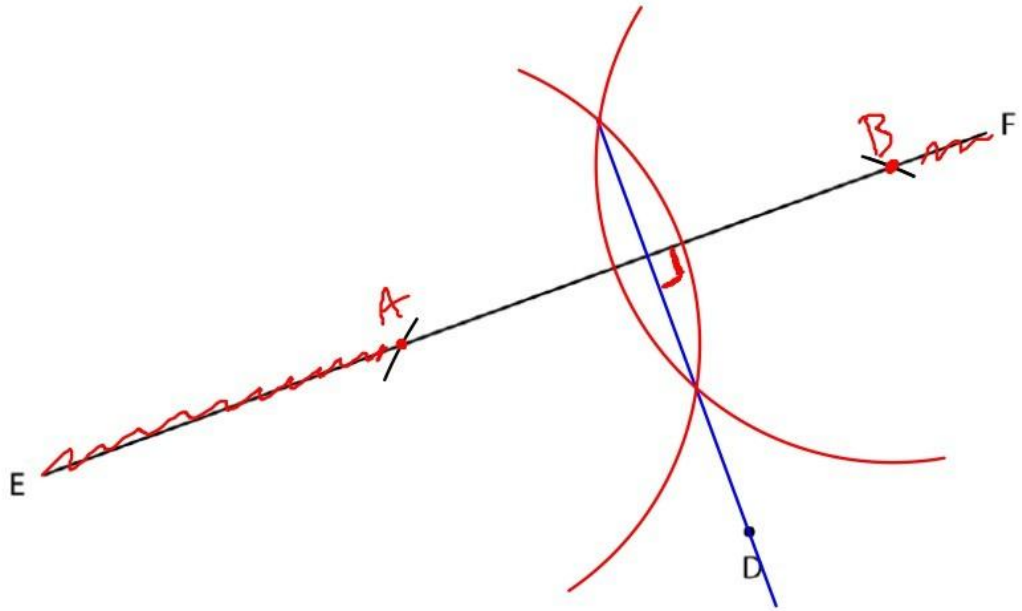
OCR

(b) Find, by construction, the shortest distance from D to the line EF.
Show all your construction lines.



(b) Shortest distance = ... cm **[3]**

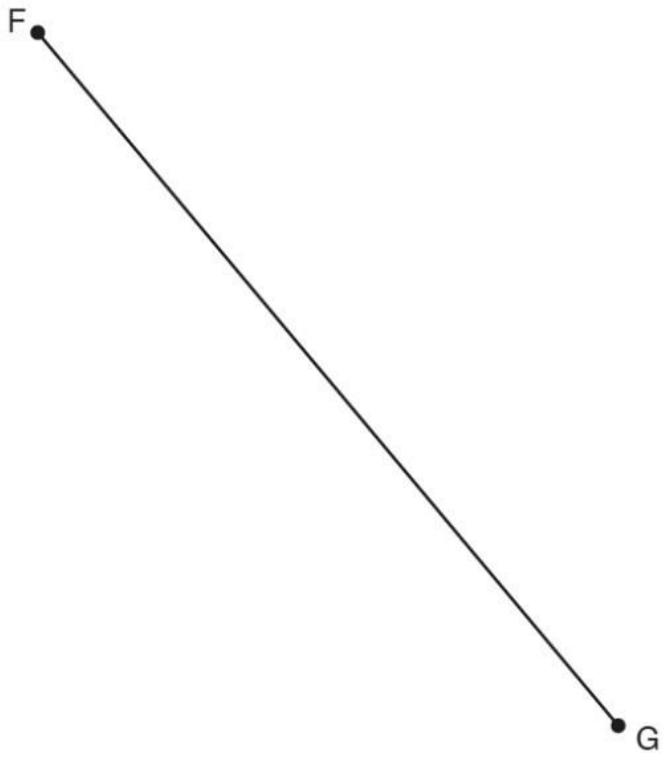
(b) Find, by construction, the shortest distance from D to the line EF.
Show all your construction lines.



(b) Shortest distance = ... cm **[3]**

15 **Using ruler and compasses only**, construct the perpendicular bisector of FG.

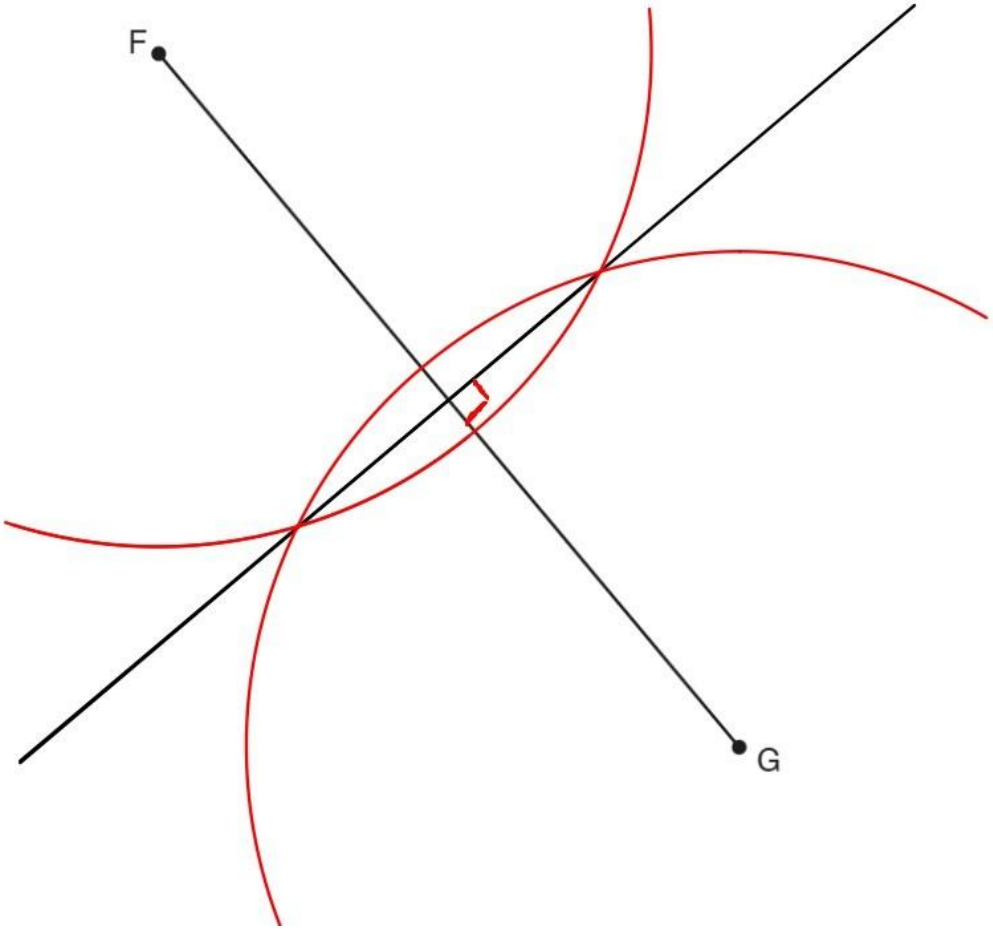
G13



[2]

15 **Using ruler and compasses only**, construct the perpendicular bisector of FG.

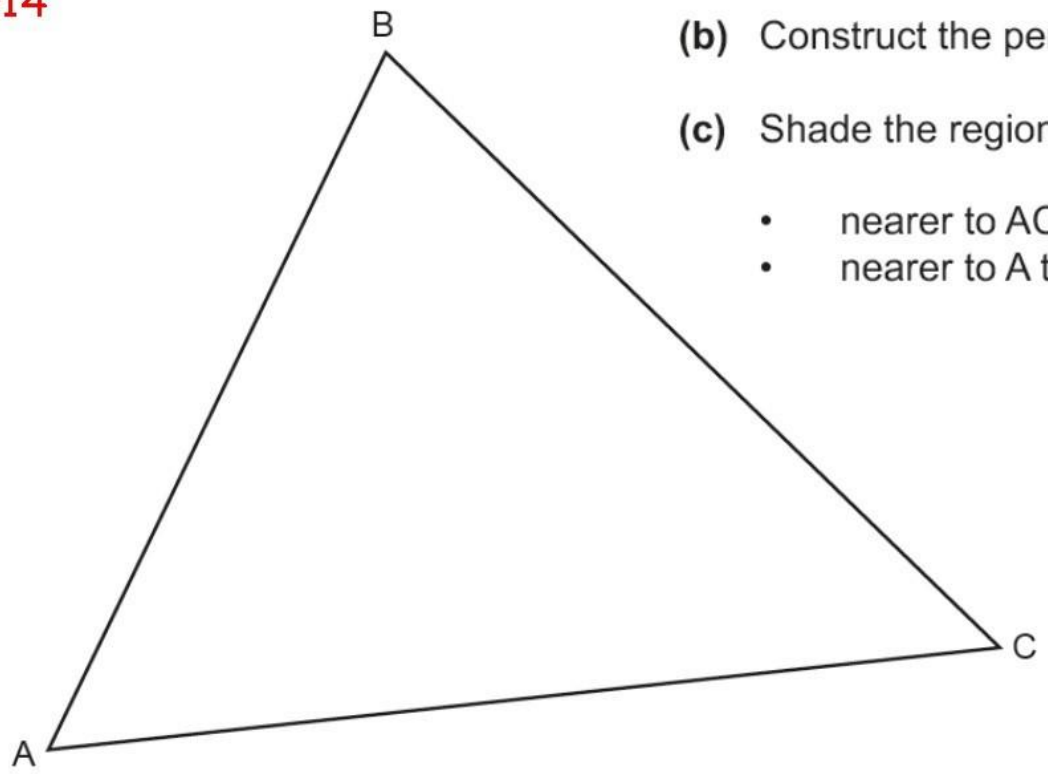
G13



[2]

7 The diagram shows triangle ABC.

G13
G14



(a) Construct the bisector of angle BAC. **[2]**

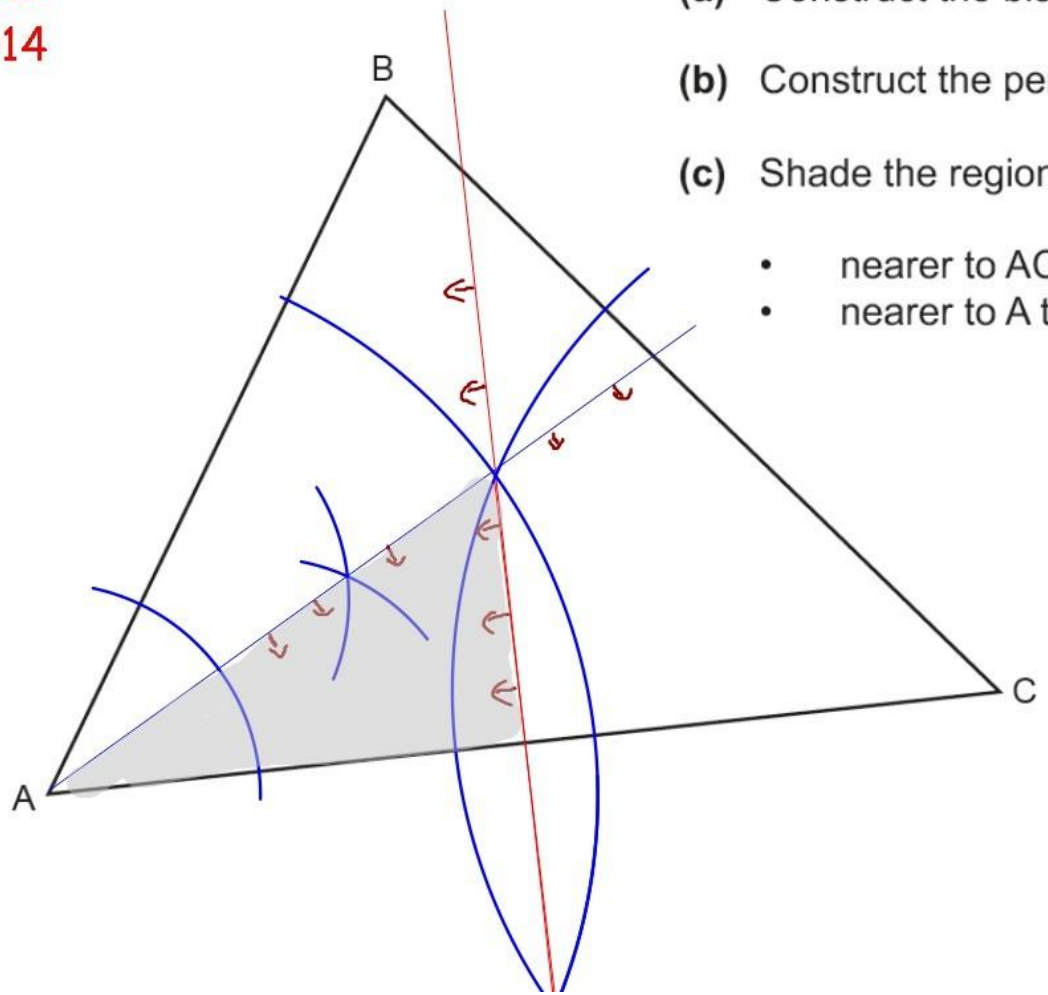
(b) Construct the perpendicular bisector of AC. **[2]**

(c) Shade the region inside triangle ABC that is

- nearer to AC than to AB
- nearer to A than to C. **[1]**

7 The diagram shows triangle ABC.

G13
G14



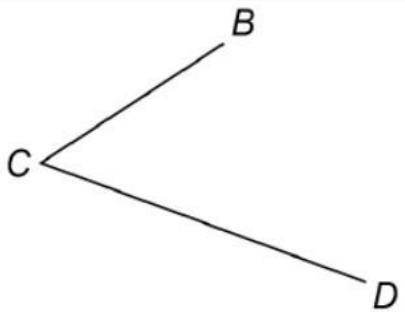
(a) Construct the bisector of angle BAC. **[2]**

(b) Construct the perpendicular bisector of AC. **[2]**

(c) Shade the region inside triangle ABC that is

- nearer to AC than to AB
- nearer to A than to C. **[1]**

21 (a) Joe wants to bisect angle *BCD*.

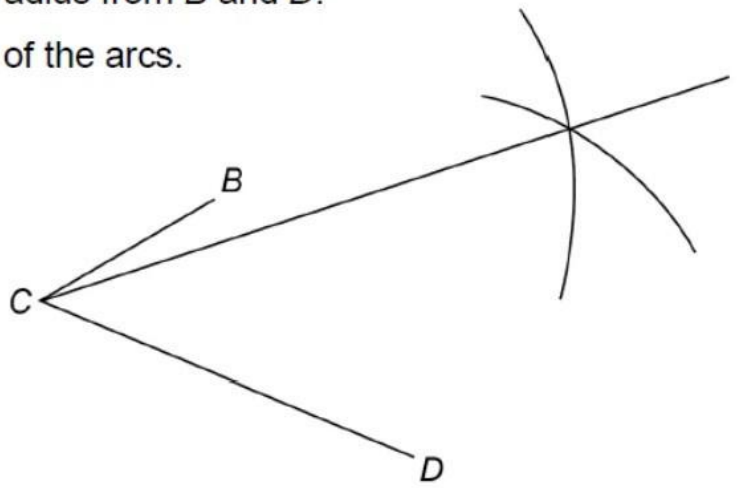


G13

Here is his method.

Use a pair of compasses to draw arcs of the same radius from *B* and *D*.

Draw a straight line from *C* through the intersection of the arcs.



Write down the error in his method.

[1 mark]

21 (b) Kay wants to show all the points 3 km from point *P*.

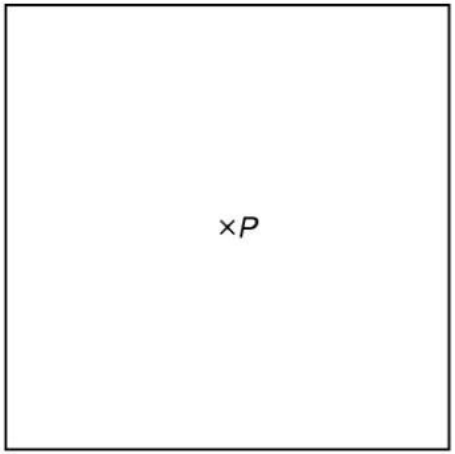
G13

Scale: 1 cm represents 1 km

×*P*

Here is her answer.

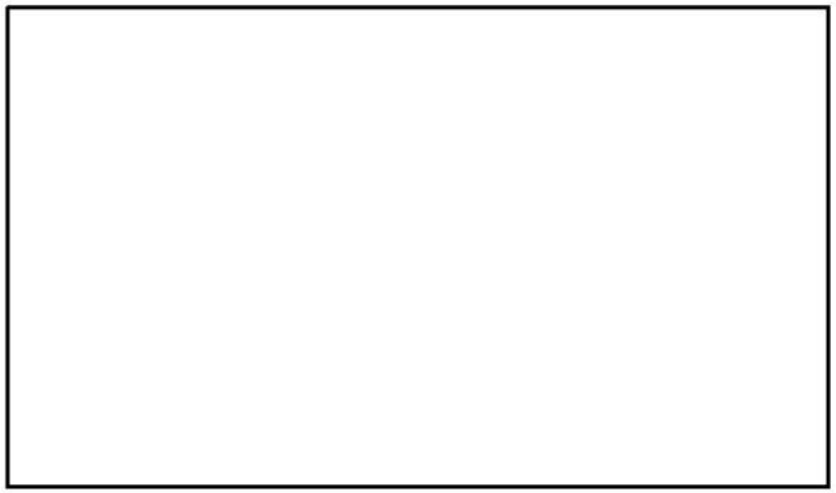
Scale: 1 cm represents 1 km



What is wrong with her answer? **[1 mark]**

21 (c) Here is a rectangle.

G13

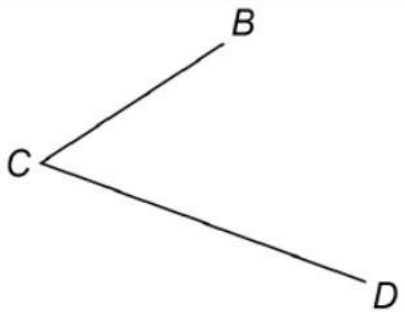


Using a pair of compasses and a straight edge, construct **one** line of symmetry.

Show clearly your construction arcs.

[2 marks]

21 (a) Joe wants to bisect angle *BCD*.

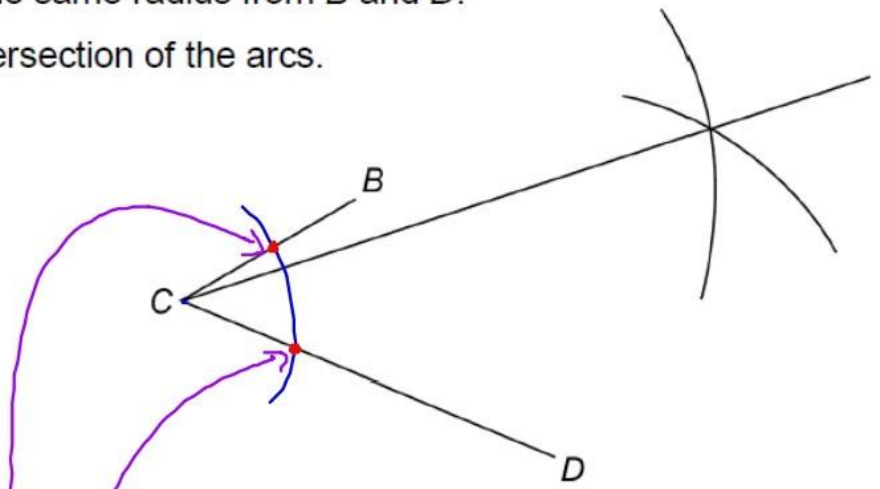


G13

Here is his method.

Use a pair of compasses to draw arcs of the same radius from *B* and *D*.

Draw a straight line from *C* through the intersection of the arcs.



Write down the error in his method.

[1 mark]

He should have placed his compsss on point C and made his first arc from there. Then make final arcs from the two points made

21 (b) Kay wants to show all the points 3 km from point *P*.

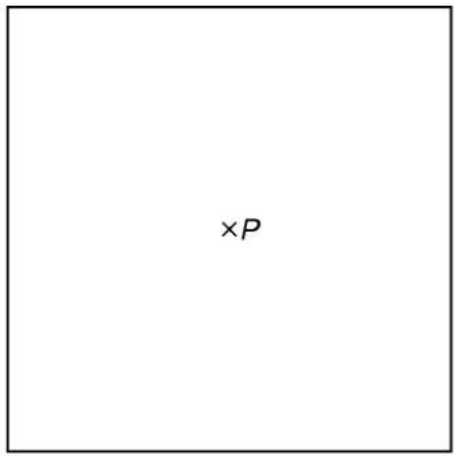
G13

Scale: 1 cm represents 1 km

×*P*

Here is her answer.

Scale: 1 cm represents 1 km

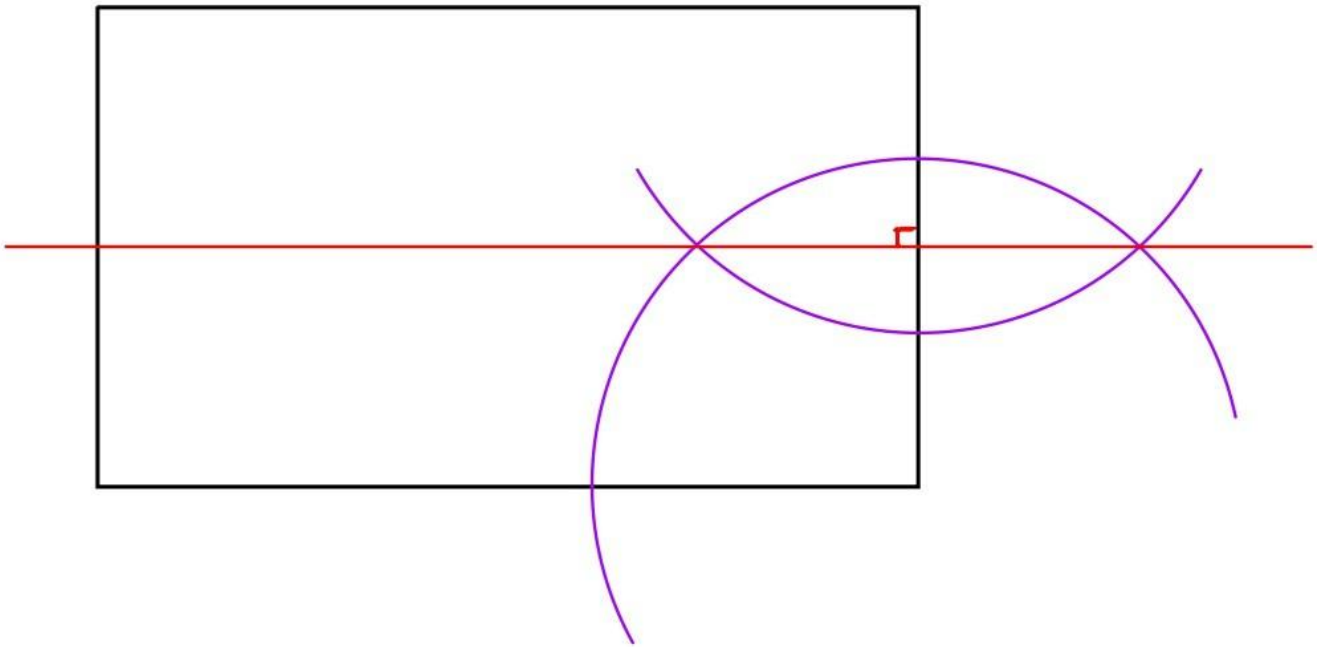


What is wrong with her answer? **[1 mark]**

Should be a circle around point p.

21 (c) Here is a rectangle.

G13



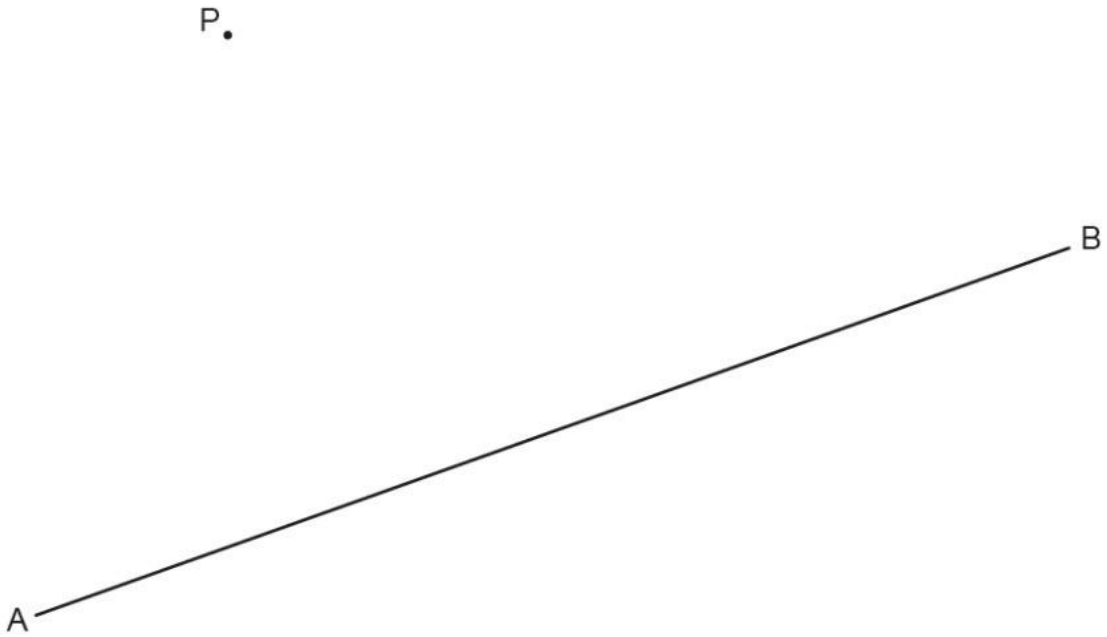
Using a pair of compasses and a straight edge, construct **one** line of symmetry.

Show clearly your construction arcs.

[2 marks]

22 Construct the perpendicular from the point P to the line AB.
Show all of your construction lines.

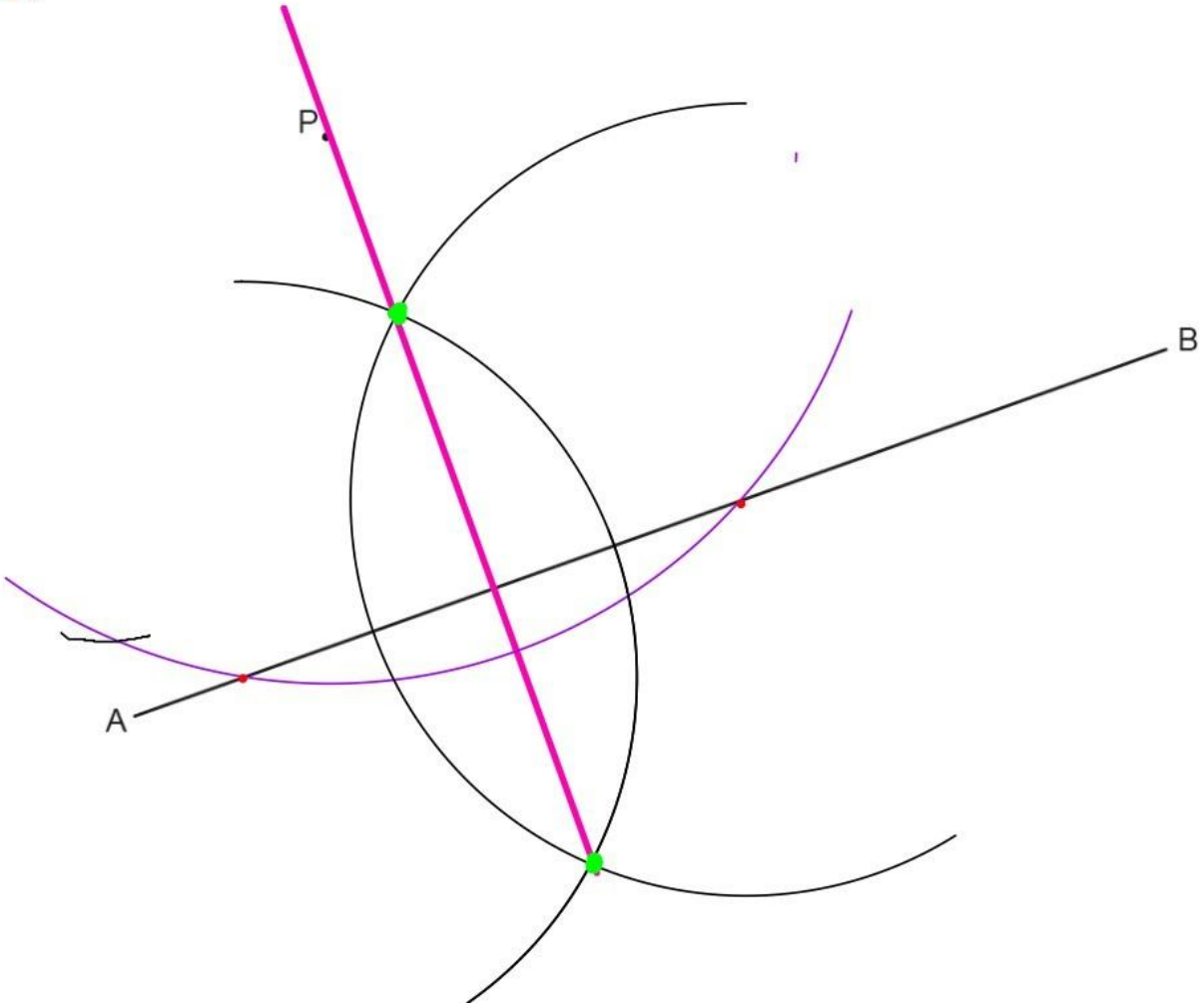
G13



[2]

22 Construct the perpendicular from the point P to the line AB.
Show all of your construction lines.

G13



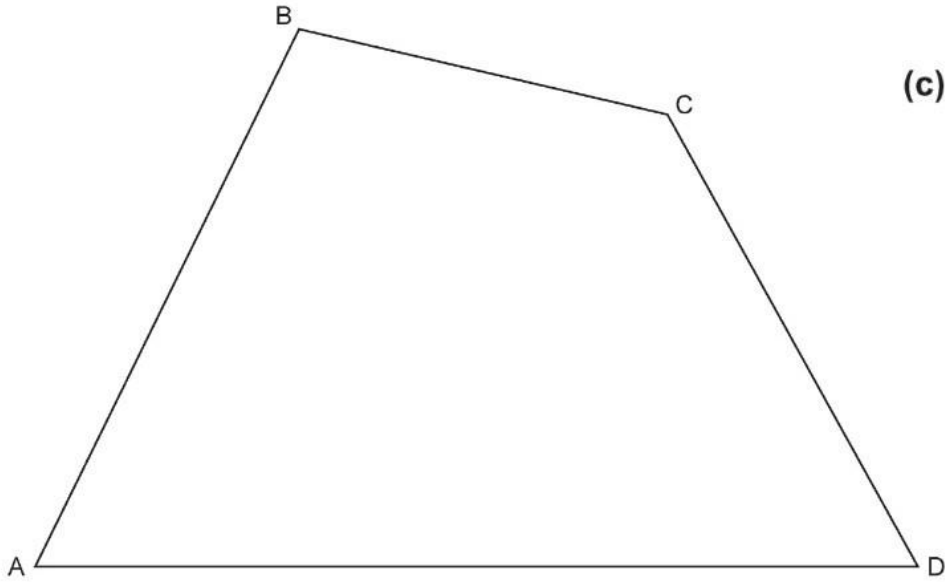
[2]

H/F

23 ABCD is a quadrilateral.

G13

G14



(a) Construct the bisector of angle ABC.
Show all your construction lines. **[2]**

(b) Construct the perpendicular bisector of BC. **[2]**
Show all your construction lines.

(c) Shade the region which is

- nearer to BC than to AB

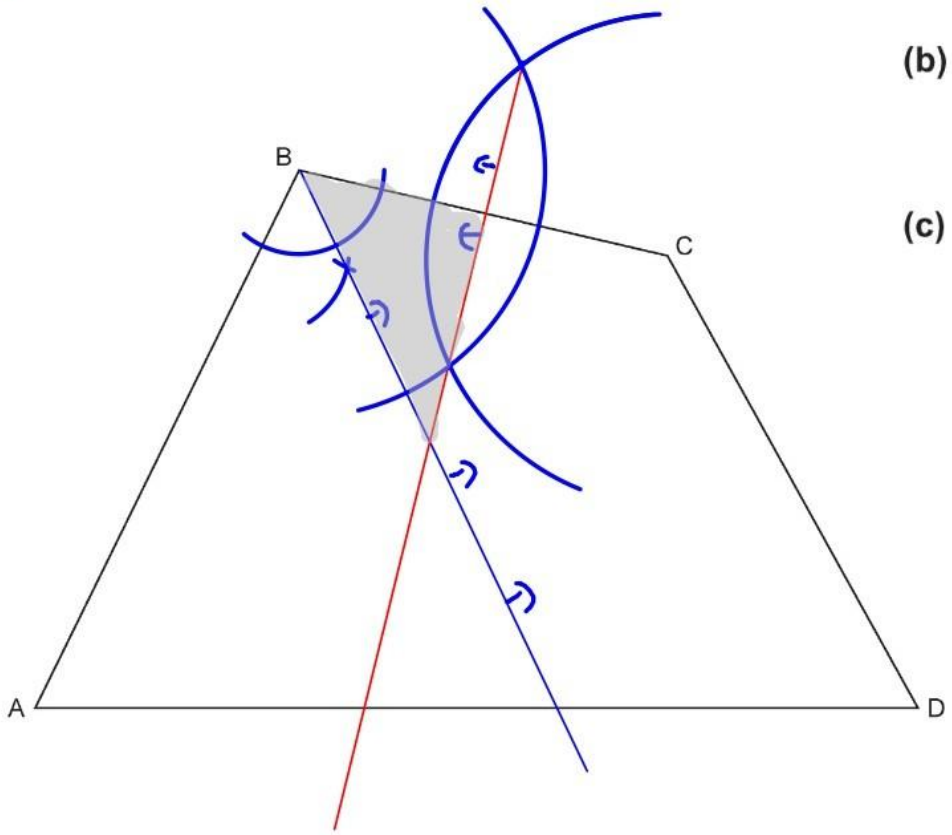
and

- nearer to B than to C. **[1]**

H/F

23 ABCD is a quadrilateral.

G13
G14



(a) Construct the bisector of angle ABC.
Show all your construction lines. **[2]**

(b) Construct the perpendicular bisector of BC. **[2]**
Show all your construction lines.

(c) Shade the region which is

- nearer to BC than to AB

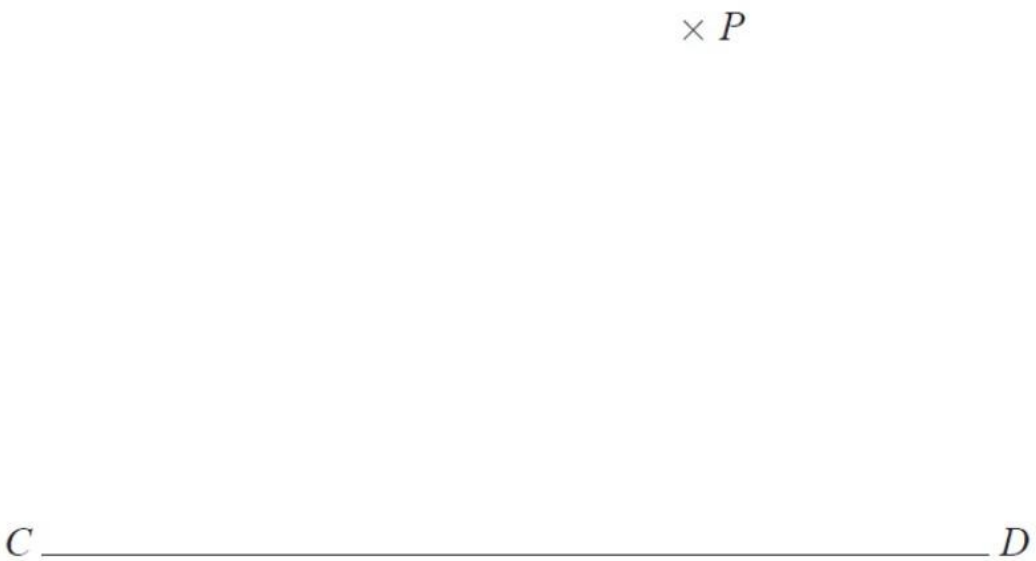
and

- nearer to B than to C. **[1]**

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23 Use a ruler and compasses to construct the line from the point P perpendicular to the line CD.
You must show **all** construction lines.

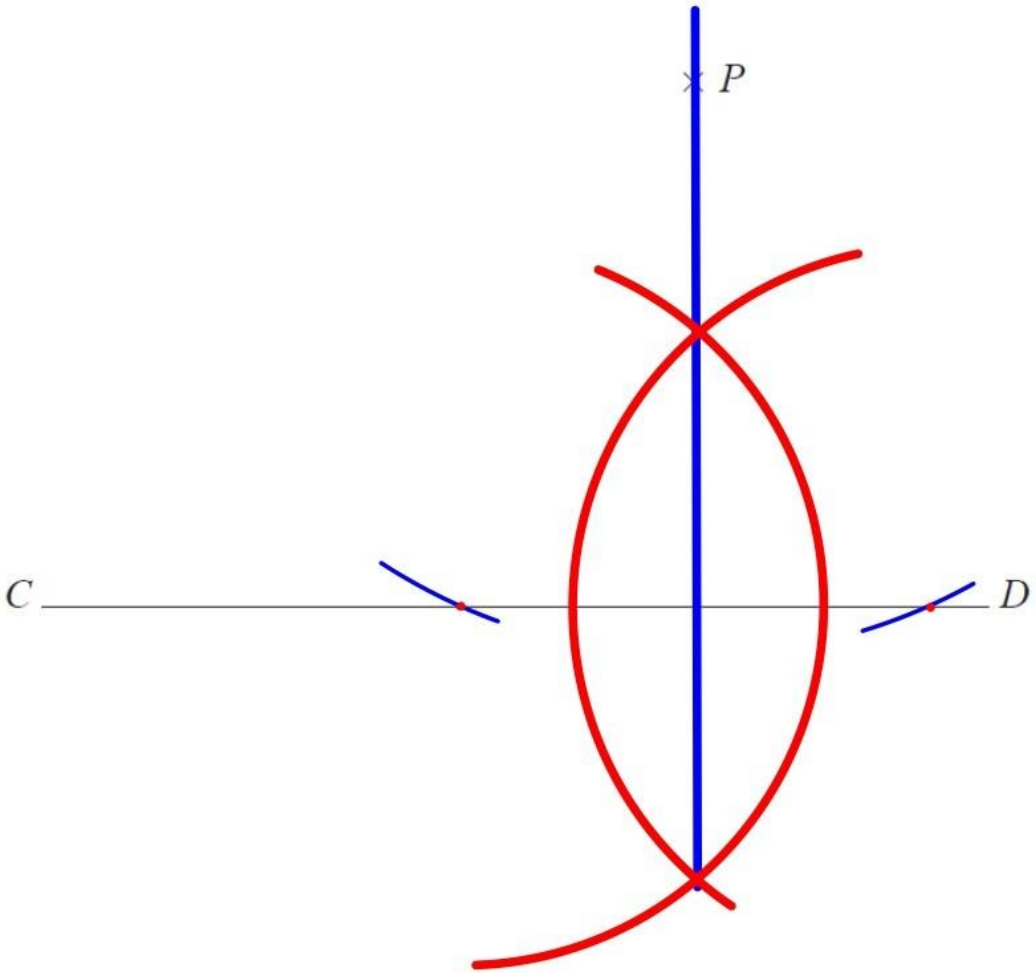
G13



(Total for Question 23 is 2 marks)

23 Use a ruler and compasses to construct the line from the point P perpendicular to the line CD.
You must show **all** construction lines.

G13



2 marks)

AQA

10 Construct a locus of points that are the same distance from points *A* and *B*.

[2 marks]

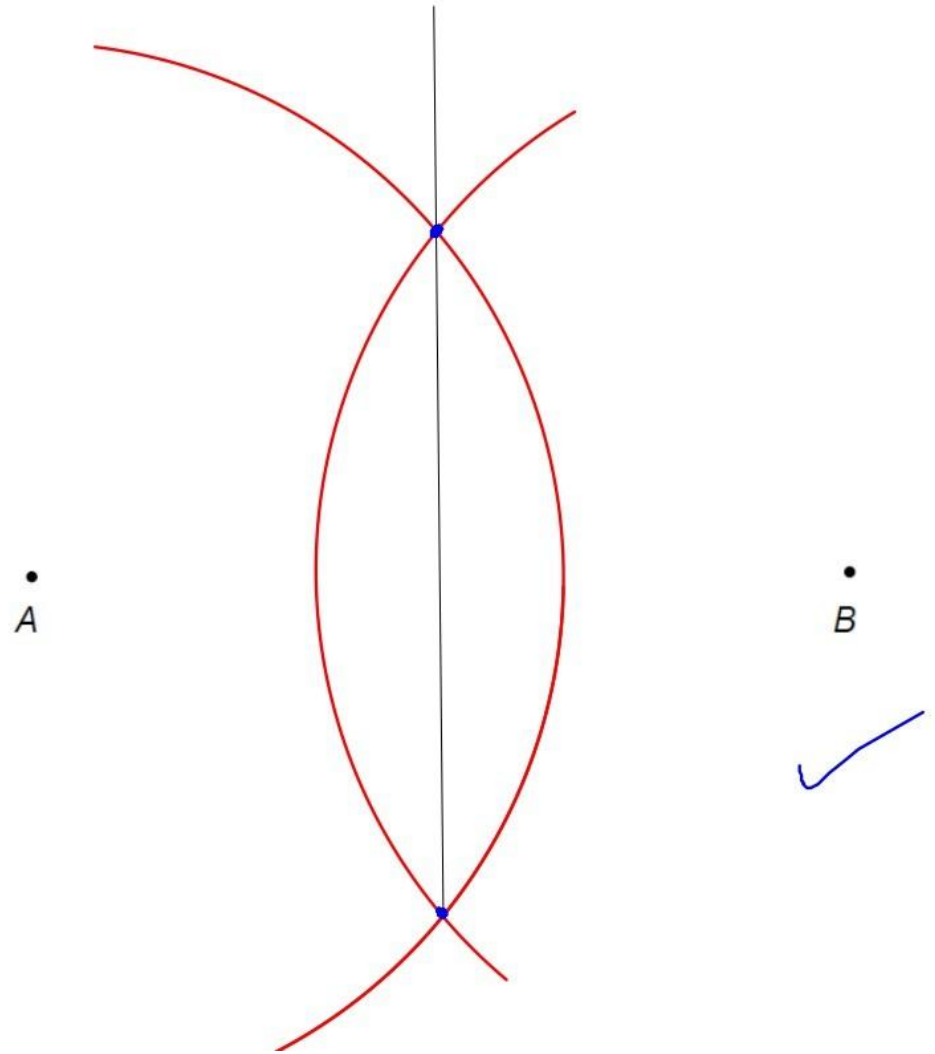
G13



10 Construct a locus of points that are the same distance from points *A* and *B*.

[2 marks]

G13



13 A quadrilateral $PQRS$ has

G13
G14

$PQ = 5$ cm

QR perpendicular to PQ

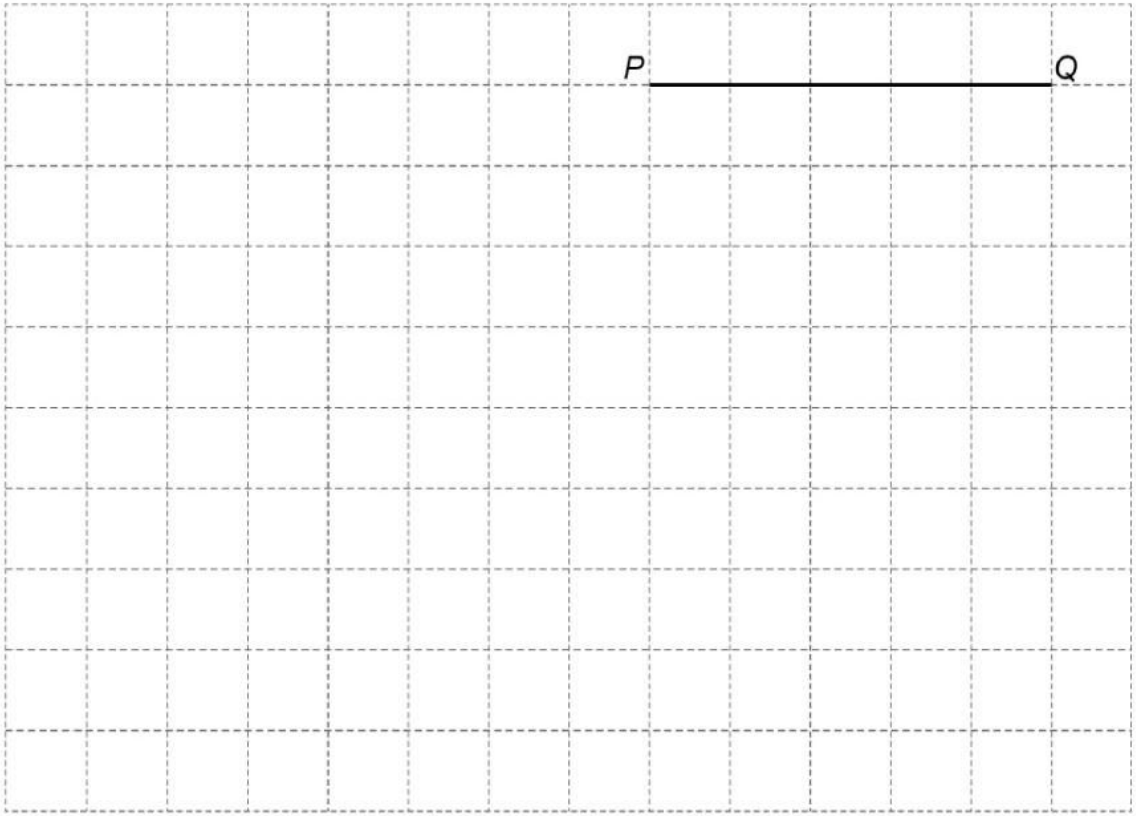
$QR = 7$ cm

angle $QPS = 135°$

$PS = 8.5$ cm

On the grid, draw the quadrilateral $PQRS$.

PQ has been drawn for you.



13

G13

G14

A quadrilateral *PQRS* has

PQ = 5 cm

QR perpendicular to *PQ*

QR = 7 cm

angle *QPS* = 135°

PS = 8.5 cm

On the grid, draw the quadrilateral *PQRS*.

PQ has been drawn for you.

