

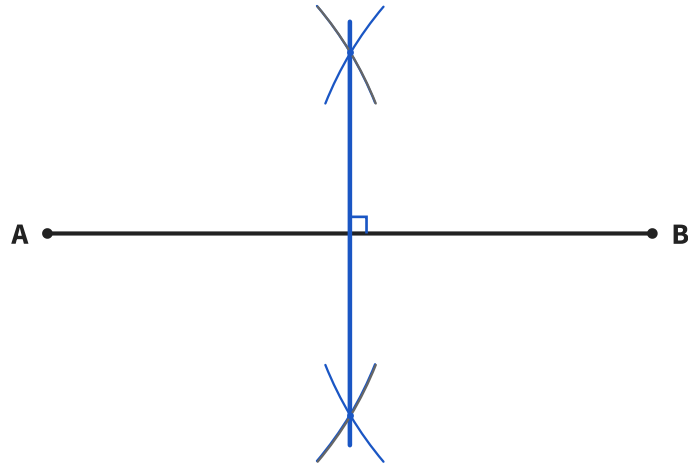
Constructing a Perpendicular Bisector

ANSWERS

1

Keep the compasses the same width.

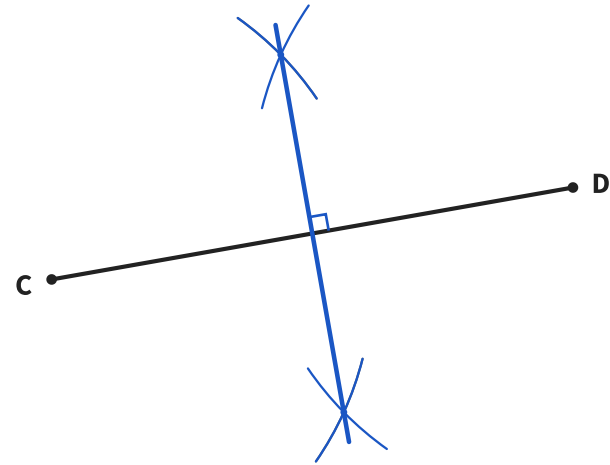
Construct the perpendicular bisector of AB. Leave your arcs showing.



2

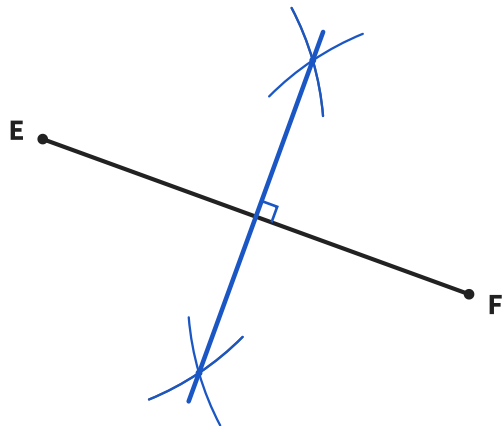
The arcs from C are drawn.

Construct the perpendicular bisector of CD. Leave your arcs showing.



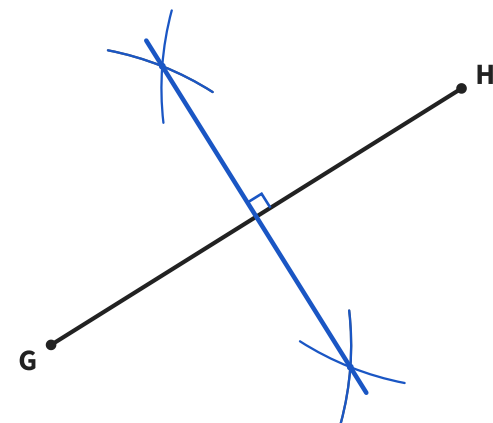
3

Construct the perpendicular bisector of EF. Leave your arcs showing.



4

Construct the perpendicular bisector of GH. Leave your arcs showing.

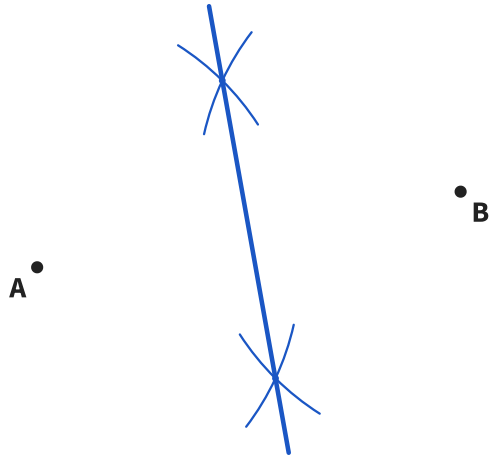


Constructing a Perpendicular Bisector

ANSWERS

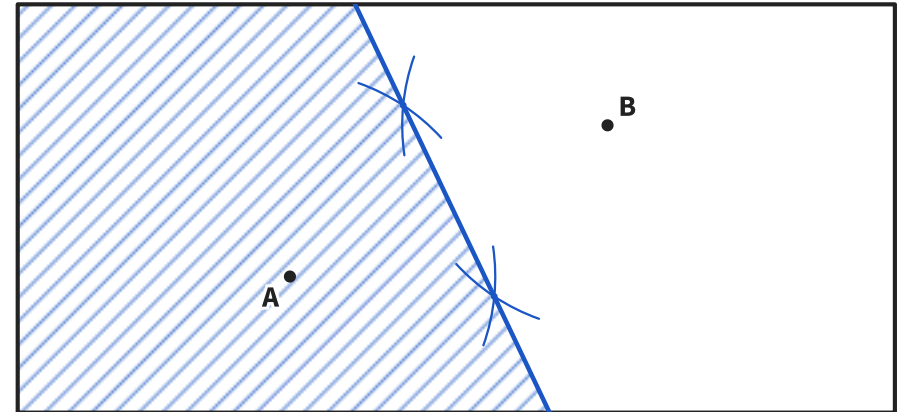
5 Notice the change!

Draw the locus of points that are the same distance from A as from B.



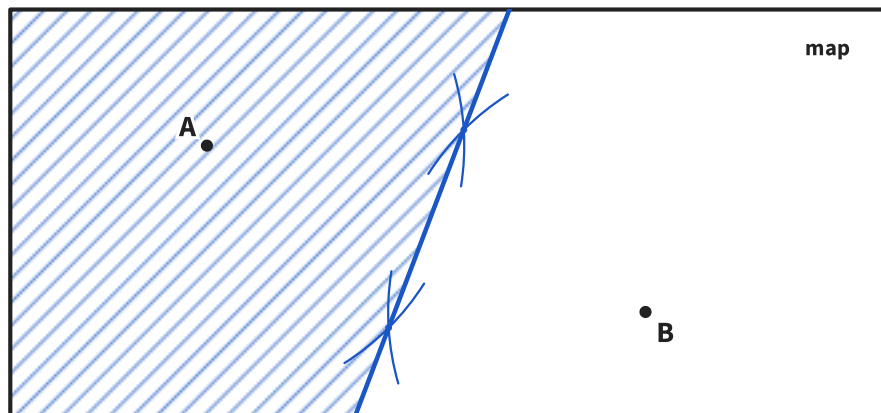
6

Shade the region inside the rectangle of points that are closer to A than to B.



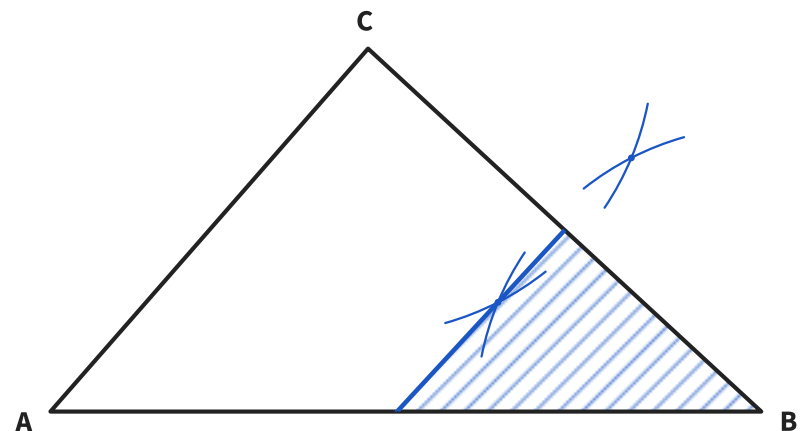
7

Children go to whichever school, A or B, is closer to their home. Shade the part of the map whose children go to school A.



8

Shade the region inside triangle ABC of points that are closer to B than to C.

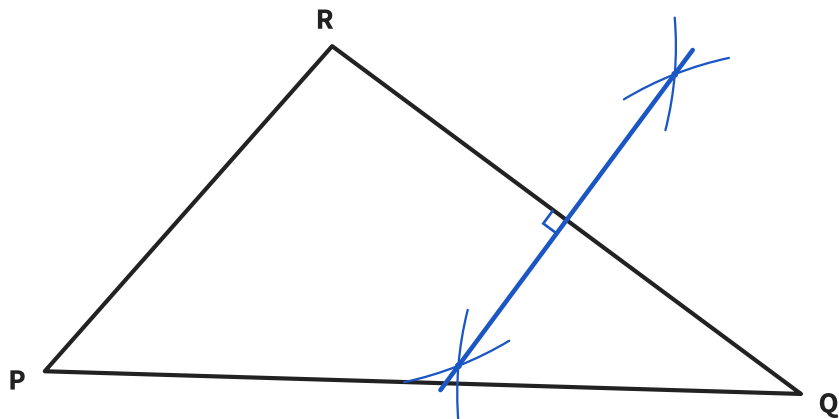


Constructing a Perpendicular Bisector *further practice*

ANSWERS

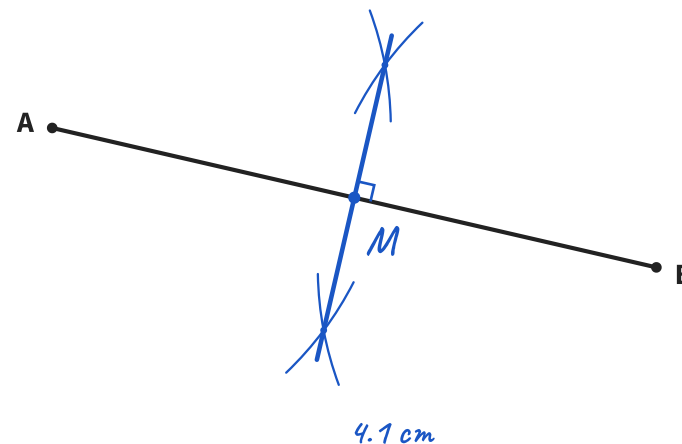
9

Construct the perpendicular bisector of the side QR of triangle PQR. Leave your arcs showing.



10

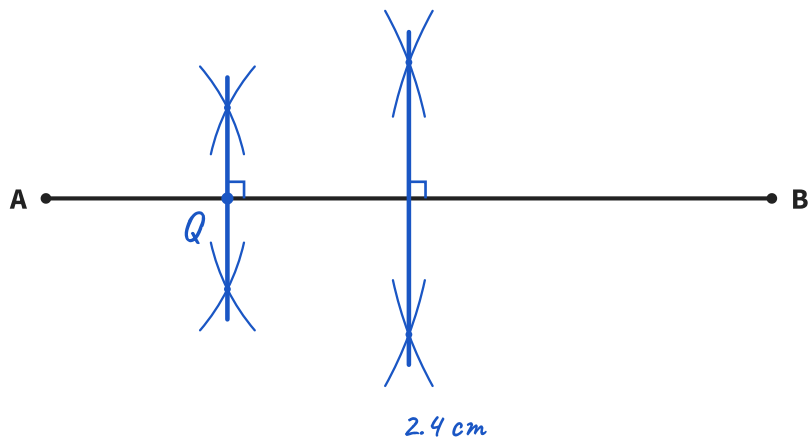
Use a construction to find the midpoint of AB. Mark it M. How far is M from A?



AM = _____

11

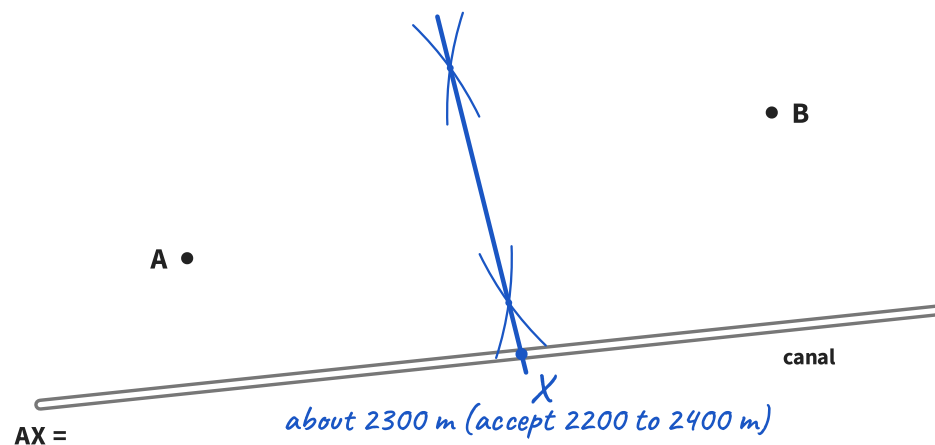
Use two constructions to mark the point Q on AB that is a quarter of the way from A to B. How far is Q from A?



AQ = _____

12

A cycle path is to be the same distance from village A as from village B all the way along. It crosses the canal at X. Scale: 1 cm represents 500 m. How far is X from A, in metres?



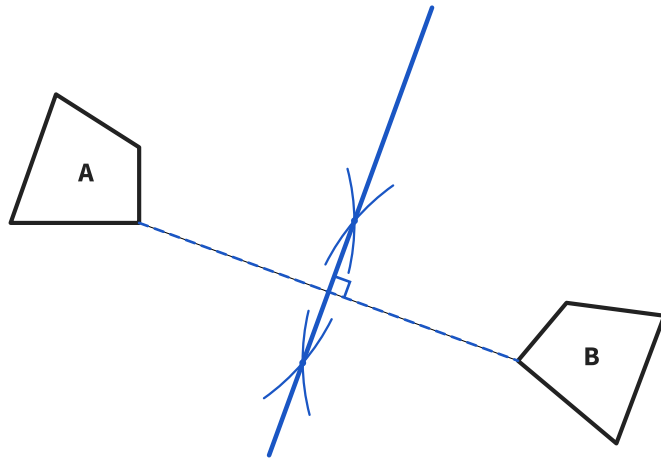
AX = _____

Constructing a Perpendicular Bisector *further practice*

ANSWERS

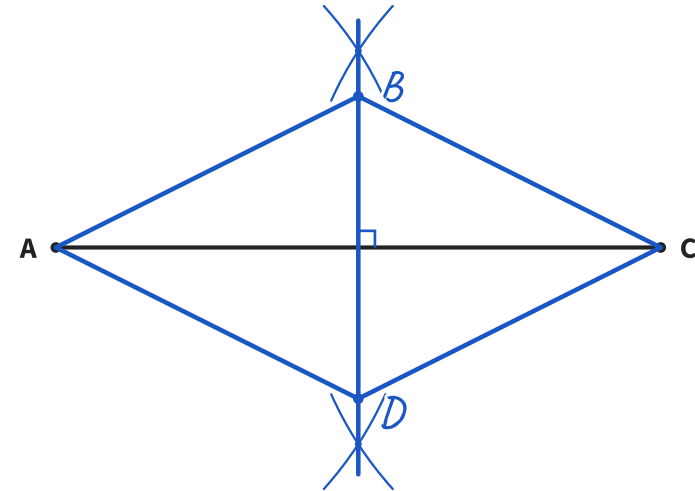
13

Shape B is a reflection of shape A. Use a construction to draw the mirror line.



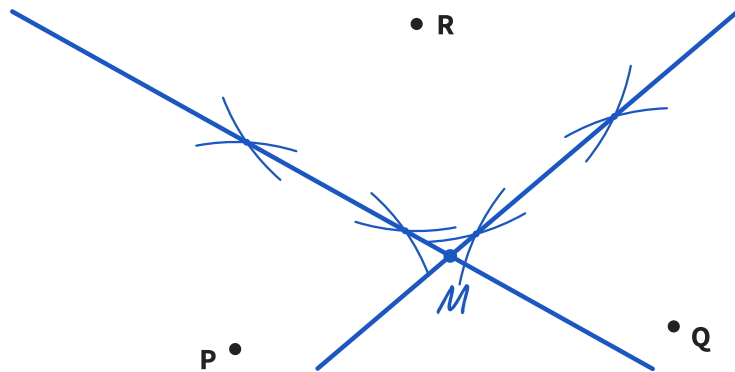
14

AC is one diagonal of a rhombus ABCD. The other diagonal, BD, is 4 cm long. Construct the rhombus.



15

A phone mast is to be the same distance from the villages P, Q and R. Construct where it goes and mark it M. Scale: 1 cm represents 2 km. About how far is the mast from each village?

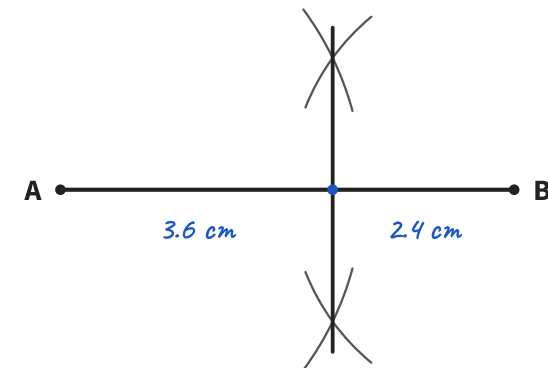


Answer

about 6.2 km (accept 5.8 to 6.6 km)

16

Sam has tried to construct the perpendicular bisector of AB. Is Sam right? Measure to check, then explain.



Answer

No. His line cuts AB 3.6 cm from A and 2.4 cm from B, so not in half.
He changed the width of his compasses.