

Name:

Exam Style Questions

Loci



Corbettmaths

Ensure you have: Pencil, pen, ruler, protractor, pair of compasses and eraser

You may use tracing paper if needed

Guidance

1. Read each question carefully before you begin answering it.
2. Don't spend too long on one question.
3. Attempt every question.
4. Check your answers seem right.
5. Always show your workings

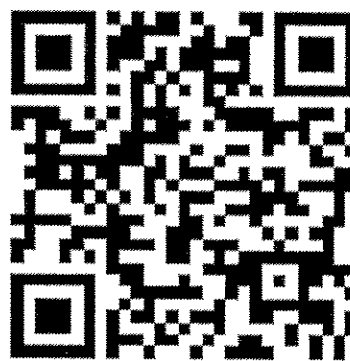
Revision for this topic

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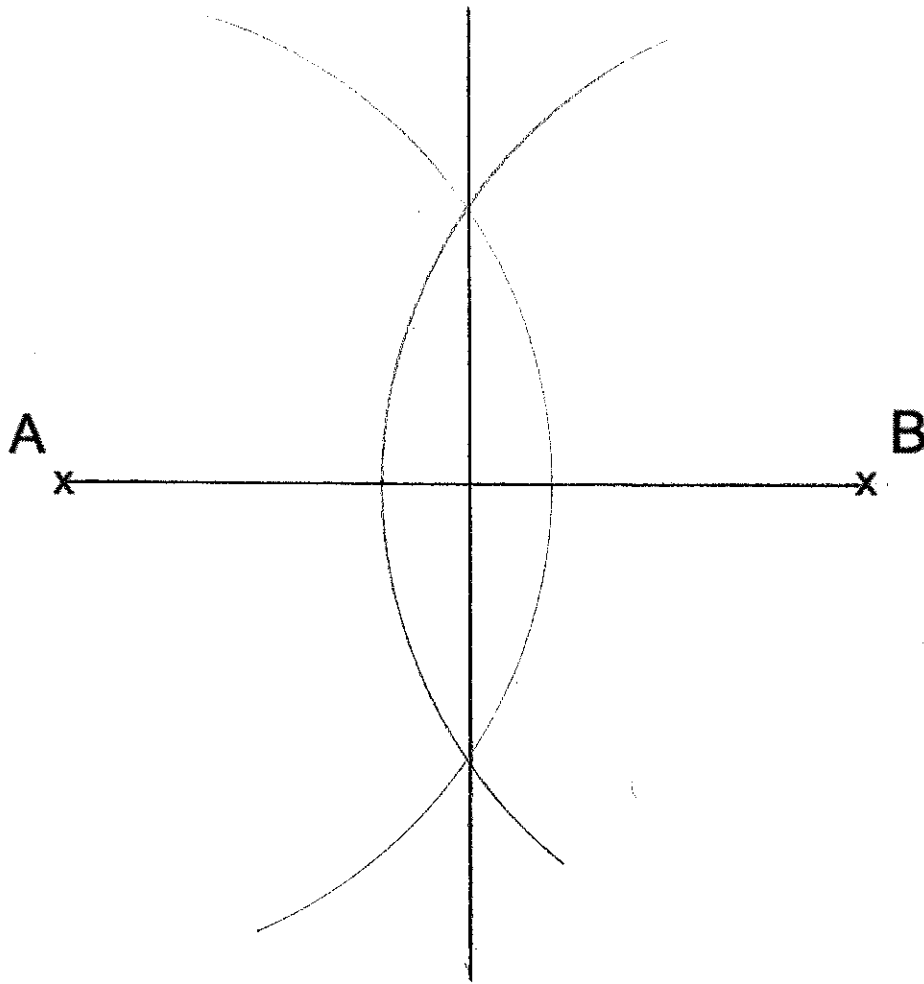
Video 75

Video 76

Video 77

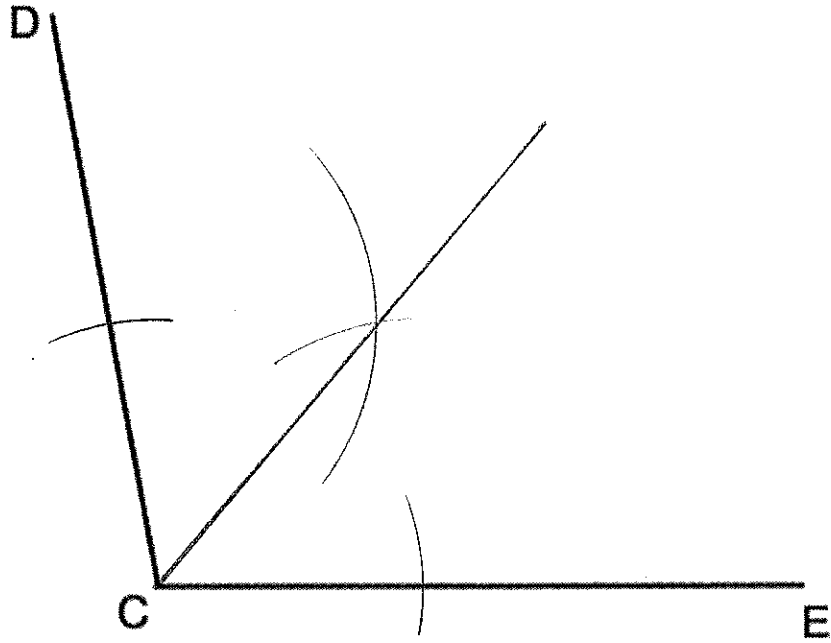


1. Draw the locus of all points which are equidistant from points A and B.



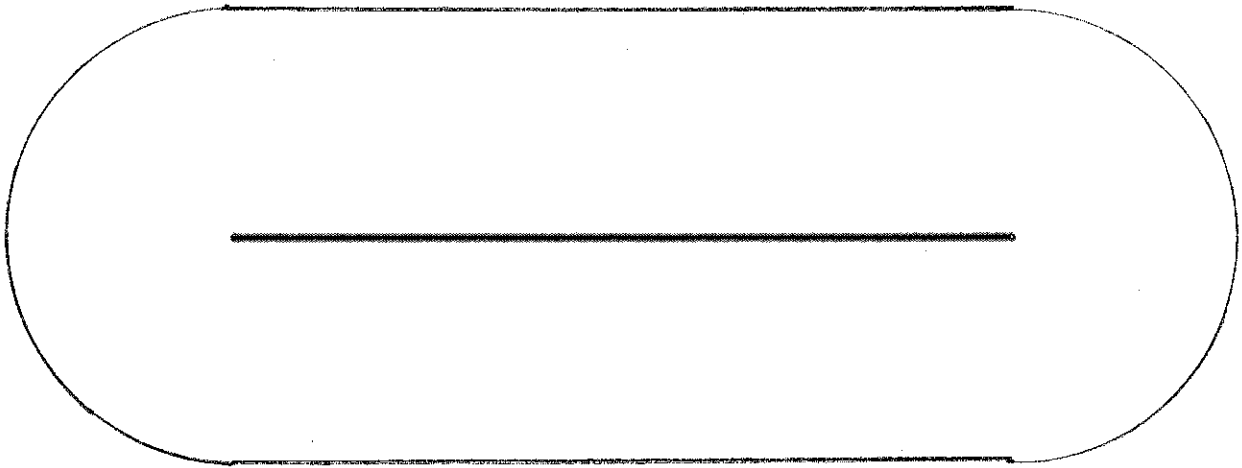
(2)

2. Draw the locus of all points which are equidistant from lines CD and CE.



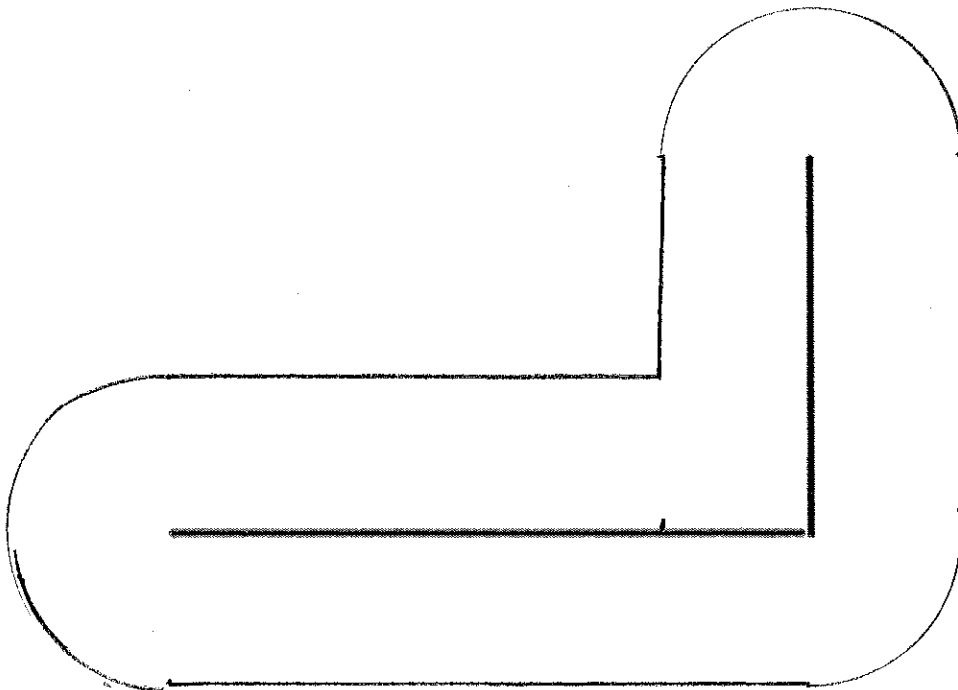
(2)

3. Draw the locus of all points 3cm from the line below.



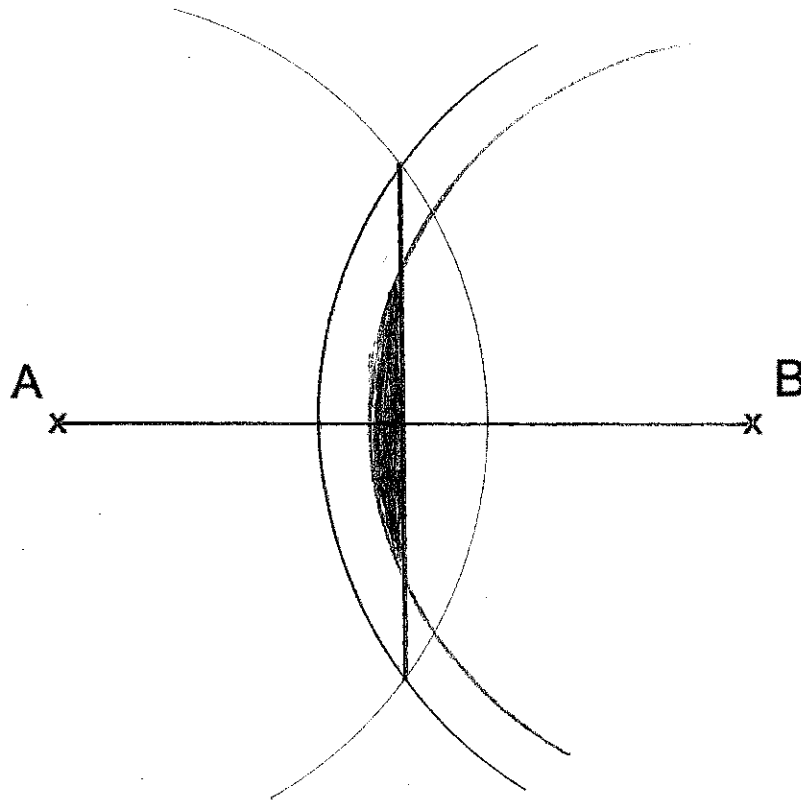
(3)

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4. Draw the locus of all points 2cm from the shape below.



(3)

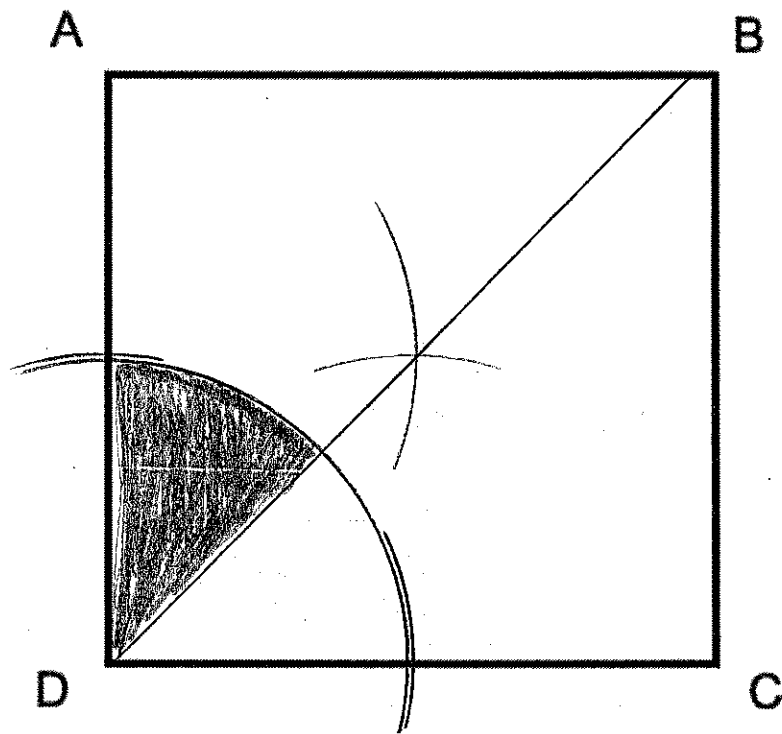
5. A and B are two points.



Shade the region which contains those points which are both closer to A than to B, and less than 5cm from B.

(2)

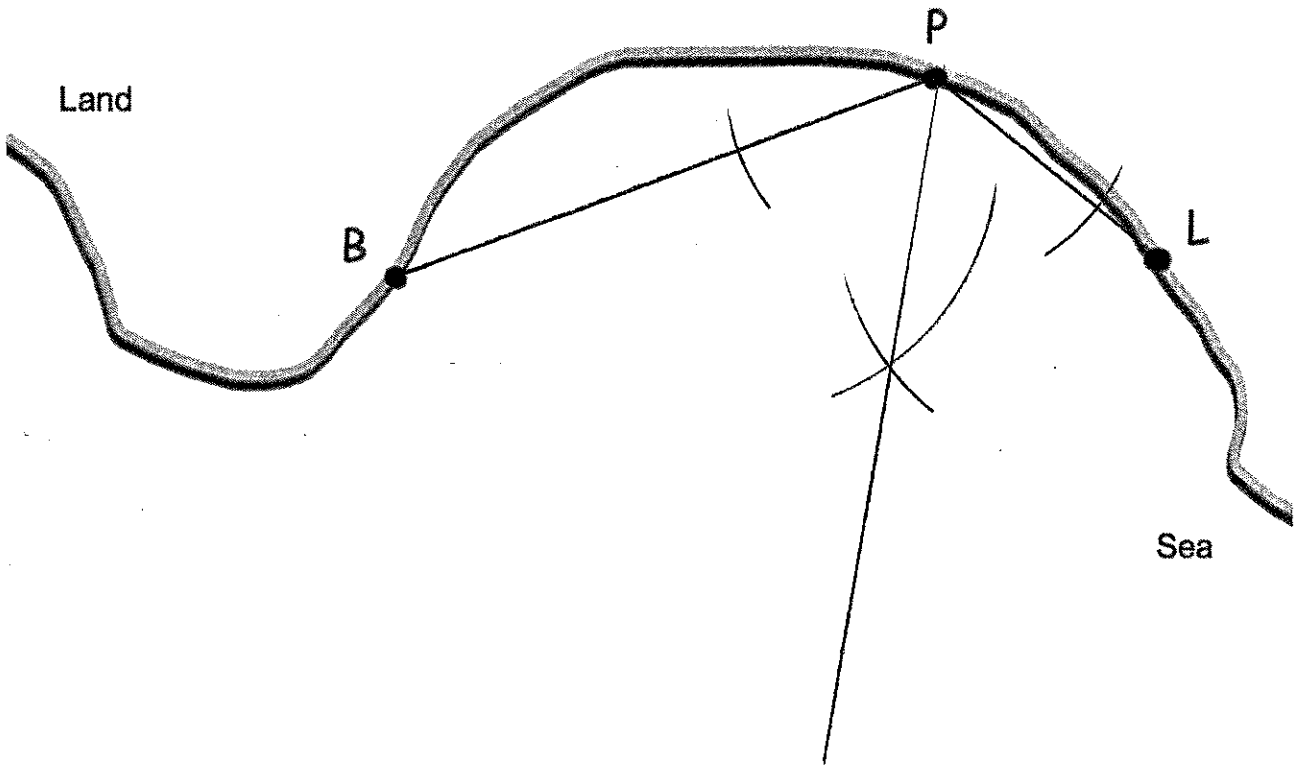
6. A and B are two points.



Shade the region inside the rectangle, which is closer to AD than DC, and less than 4cm from D.

(3)

7.



A yacht leaves the port, P, on a course that is an equal distance from PB and PL.

Using ruler and compasses only, construct the course on the diagram.
You must show your construction arcs.

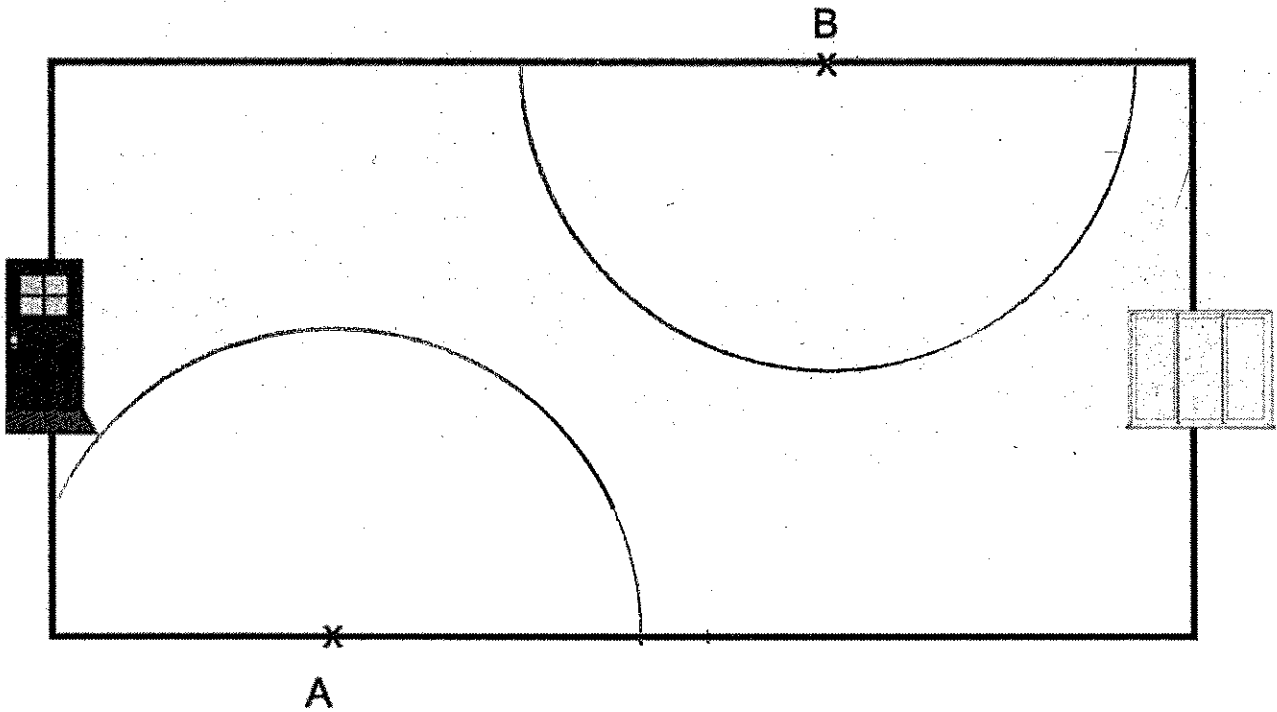
(2)

8. Below is a diagram of a hall.
There is a front door at one end of the hall and a patio door at the other.
There are two burglar alarm sensors, one at A and one at B.

The range of each sensor is ^{4m} 4m.

4cm

1cm = 1 metre



The alarm is switched on.

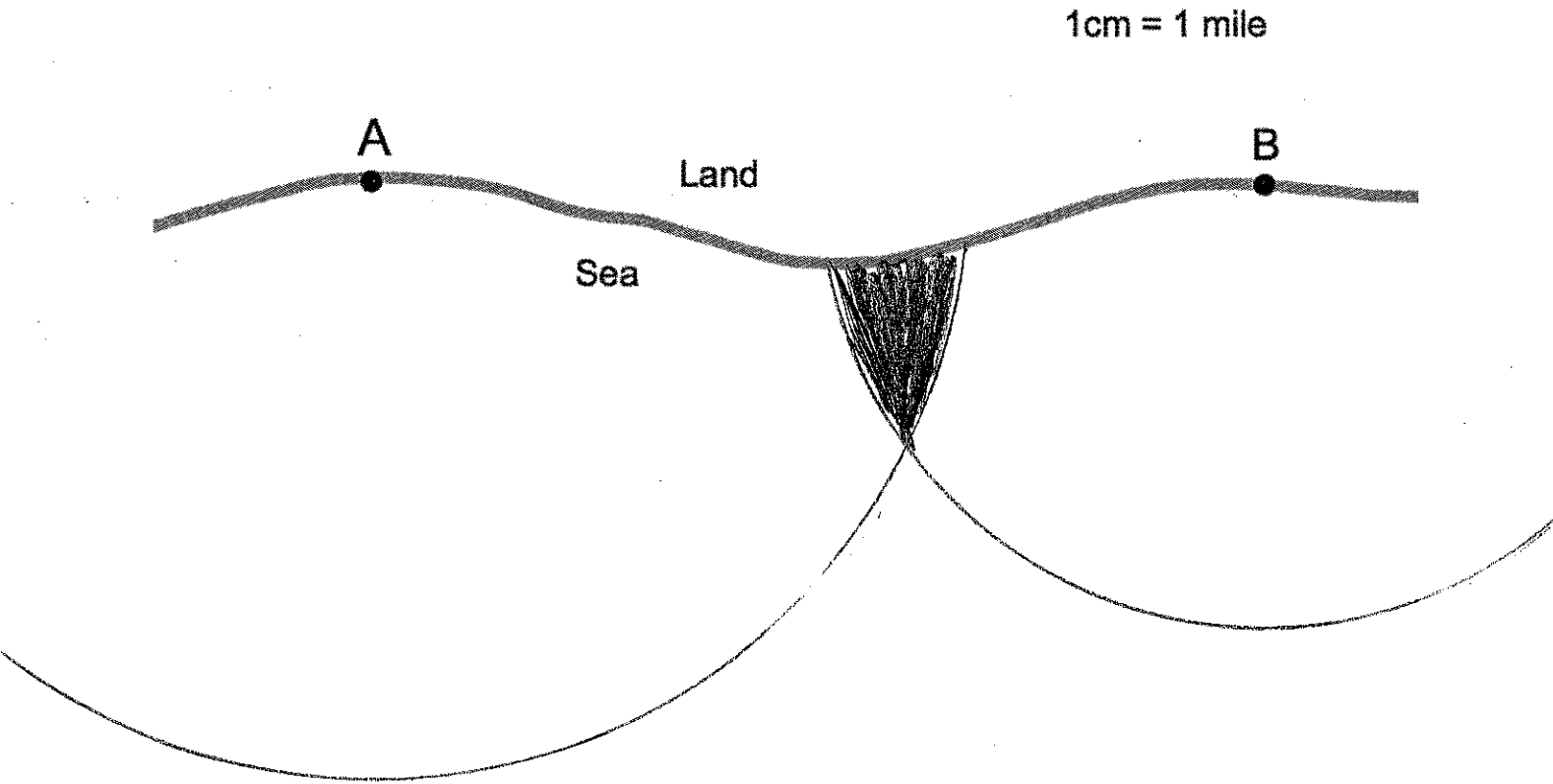
Is it possible to walk from the front door to the patio door without setting off the alarm?

Yes, it is possible.

9. The diagram shows two lighthouses.

A boat is within than 8 miles of lighthouse A. *8cm*
The same boat is within 6 miles of lighthouse B. *6cm*

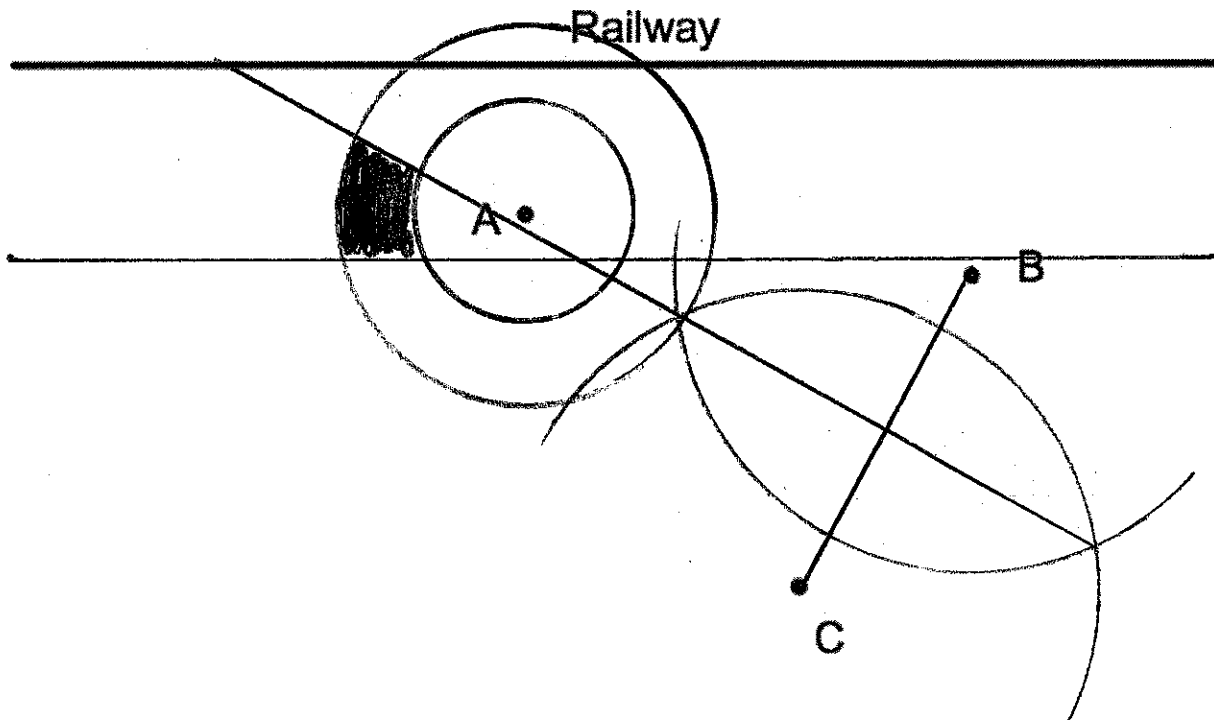
Shade the possible area in which the boat could be.



(2)

10. A phone box is located near three houses, A, B and C.

1cm = 200m



The phone box is less than 500m from the railway track. *2.5cm*
The phone box is between 300m and 500m from house A. *1.5cm & 2.5cm*
The phone box is closer to house C than house B.

Shade the region on the map where the phone box could be located.

(5)