

Lawn 1 (Foundation)

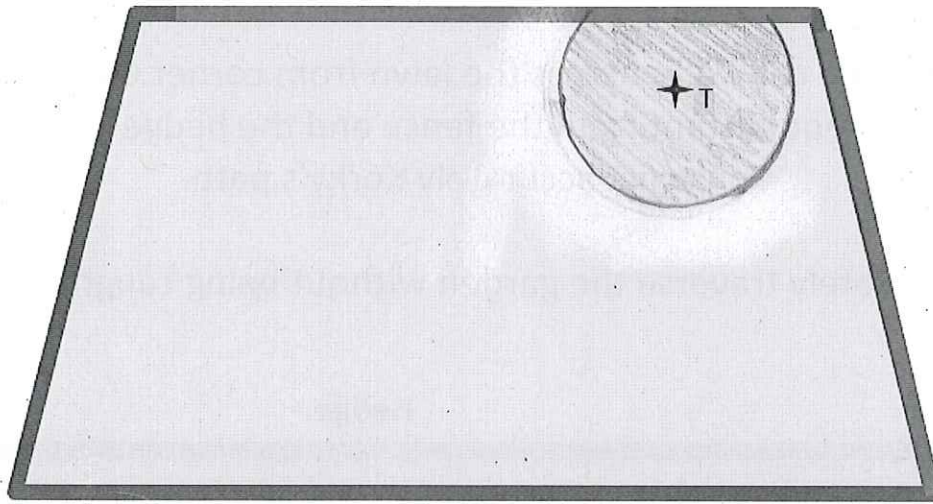
Use a scale of 1cm for 1m for both lawn questions

The diagram is of a garden lawn.

A tree stands at point T.

At noon it casts a circular shadow of radius 1.5 metres.

Show clearly the area of lawn that is in shadow.

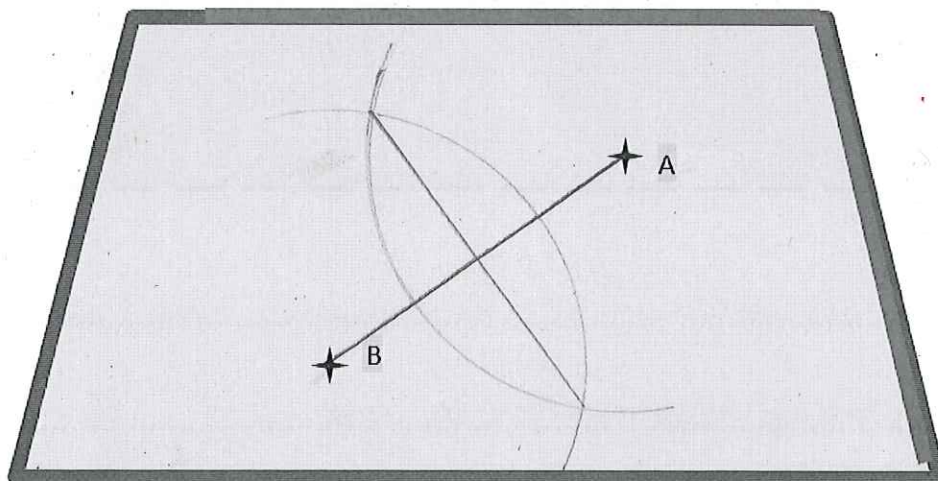


Lawn 2

Two birds land in the garden at A and B.

In order to not frighten them the gardener walks across the lawn keeping equidistant between them.

Show his path on the diagram.



Korky's Dilemma (Intermediate)

1 cm on the diagram represents 0.5 metres

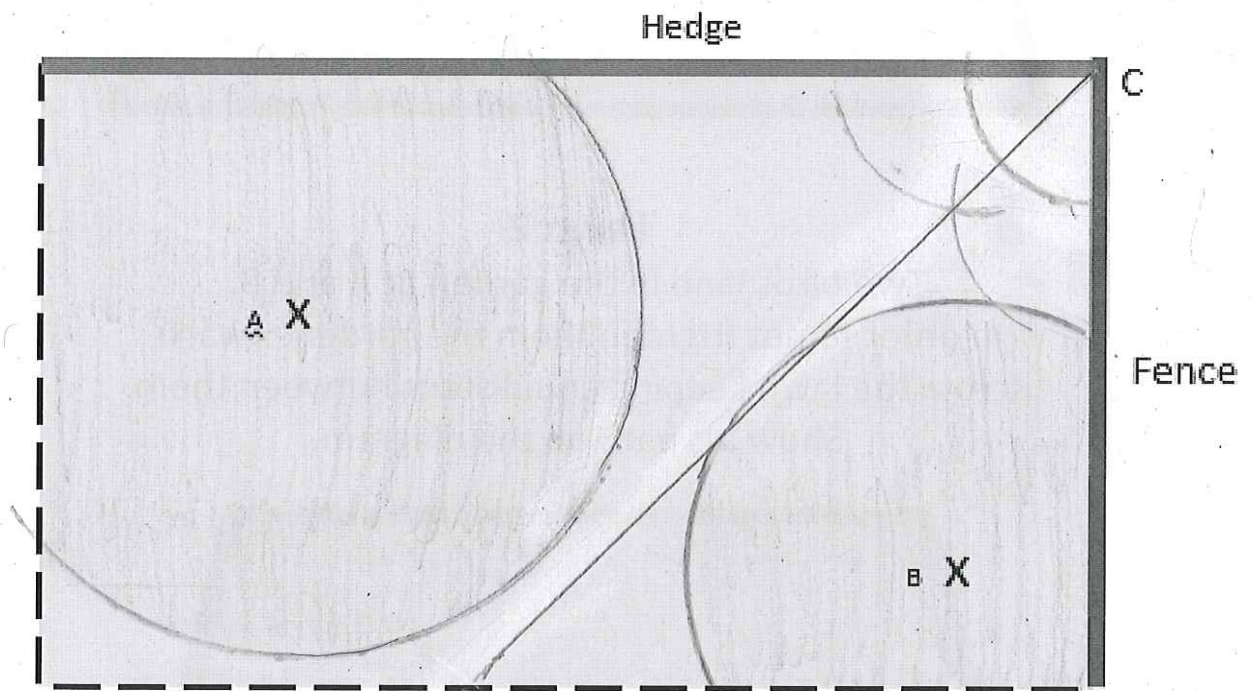
Tizer the dog is tied up at point A on a rope 225 centimetres long.
Another dog, Max is tied up at point B on a rope 1.75 metres long.

Shade accurately on the diagram the areas
where each dog is able to roam.

Korky the cat walks across the lawn from corner C keeping
equidistant from the fence and the hedge.

Construct accurately Korky's path.

Can Korky safely traverse the garden without being caught by a dog?



Conclusion... No... the cat can not walk across the lawn
without being caught by a dog

Disputed Waters (Higher)

Use 1cm to represent 20km

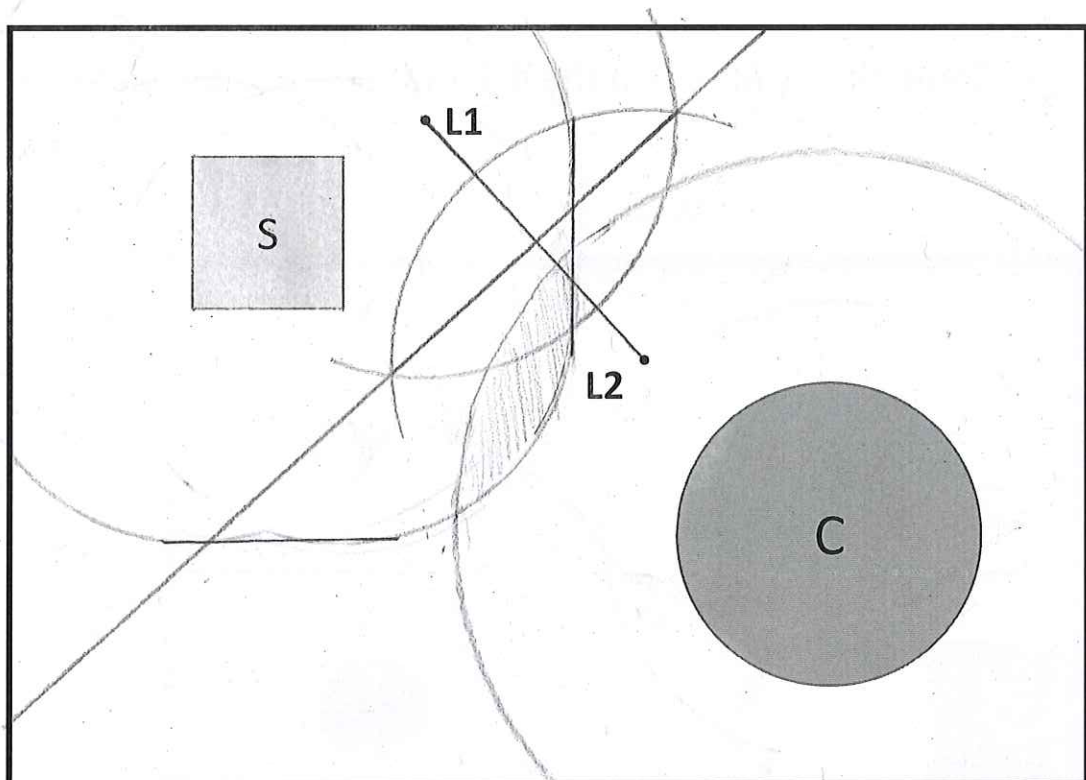
Square Island (S) and Circle Island (C) are in dispute over fishing rights.

1. Both claim to own the waters up to 60km off their shores.

- Show the fishing areas claimed by each island **
- Shade in clearly the disputed area

2. A ship travels equidistant between Lighthouse 1 (L1) and Lighthouse 2 (L2)

- Plot the course of the ship, showing clearly its passage
- Using your scale drawing, how far does the ship travel in Square Island's Fishing Waters?



**Think carefully exactly what is the shape of each fishing area
Make sure your locus is measured from the shoreline of the islands

Asif's Garden Design (Gold)

Use a scale of 1cm represents 1 metre

Asif is designing a garden for his new house. The diagram shows the outline of the garden. Help him decide where he can plant his carrots in the garden using the following criteria:

- The carrots cannot be within 3m of the tree because the tree will soak up all the water. *Show this area in blue*
-
- They cannot be within 4m of the wall because the wall will cast a shadow. *Show this area in green*
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- He cannot plant them within 2 metres of the shed because it will flood as the rain runs off the roof. *Show this area in yellow*
- Show clearly *in red* on the diagram the possible planting area.

