1. Alvita has a new job in Ayrton.
Her children will go to school in Benton.

She wants to live:

- nearer to Benton than Ayrton
- less than 12 miles from Ayrton

Using a ruler and a pair of compasses, construct and shade the region where Alvita wants to live.

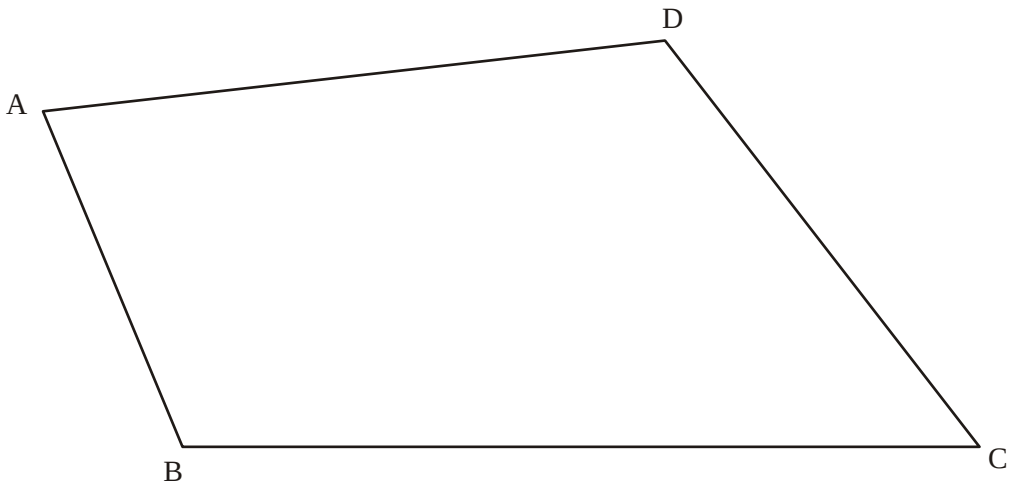
Scale: 1 cm represents 2 miles

Ayrton •

• Benton

[4]

2. In this question use only ruler and compasses.
Leave in all your construction lines.



The diagram shows the scale drawing of a field, ABCD.
The scale is **1 cm to 10 m**.

A tree, T, stands in the field.

It is

- equidistant from BA and BC
- 50 m from D

Construct and mark the position of T.

[4]

3. Use ruler, compasses and pencil only to answer this question.
Leave in all your construction lines.

PQR is an isosceles triangle.
PQ = 6 cm, PR = QR = 8 cm.

(a) **Construct** triangle PQR.
The base PQ is drawn for you.

[1]

(b) **Construct** the bisector of angle P.

[2]

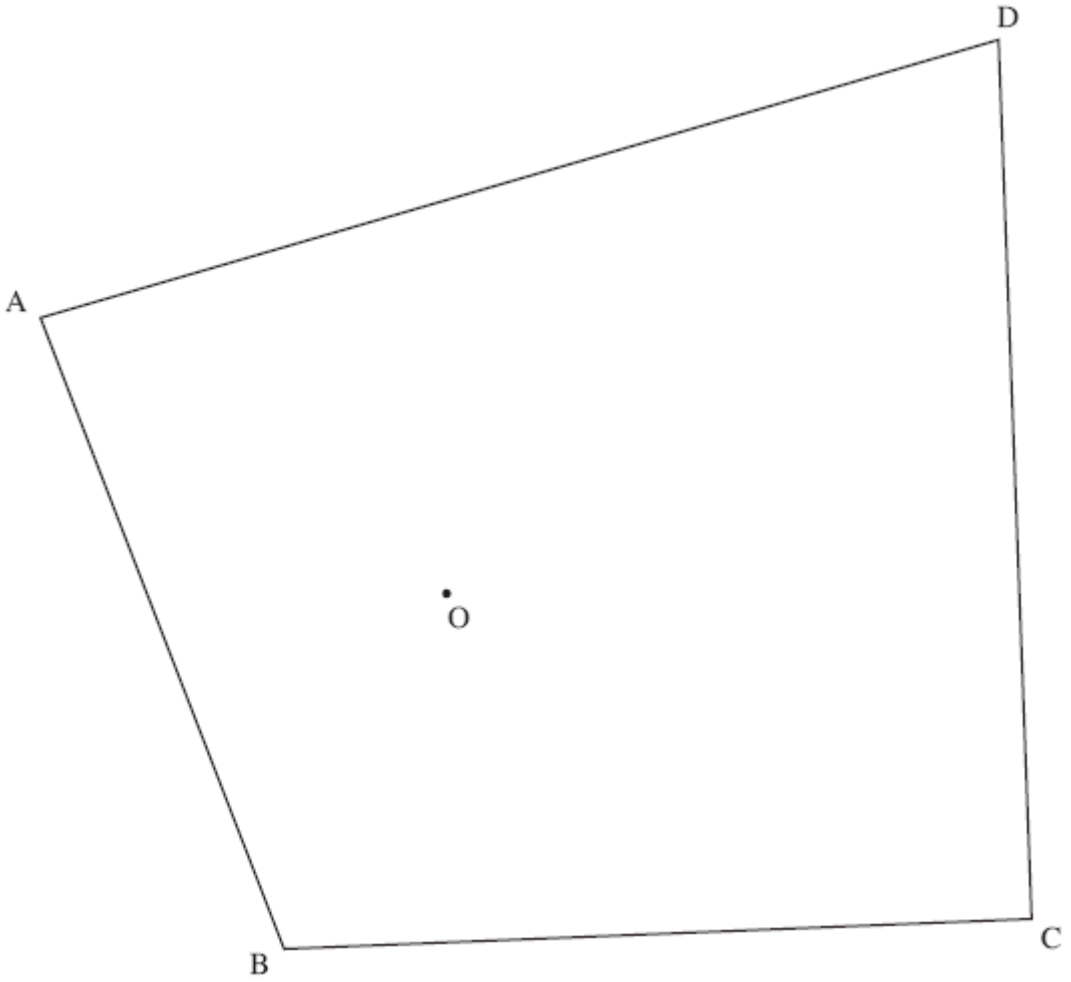
(c) A point S is inside the triangle.
It is less than 4 cm from P **and**
closer to PQ than PR.

Construct and shade the region which contains S.

[2]

4. The scale drawing shows a park ABCD.
There is an old oak tree at O.

Scale: 1 cm to 10 m



The council wants to put a bandstand in the park.

It should be

- at least 20 m from the old oak tree at O,
- at least 50 m from the boundary CD,
- nearer to gate A than to gate B.

Construct and shade the region where the bandstand can go.
Leave in all your construction lines.

[4]

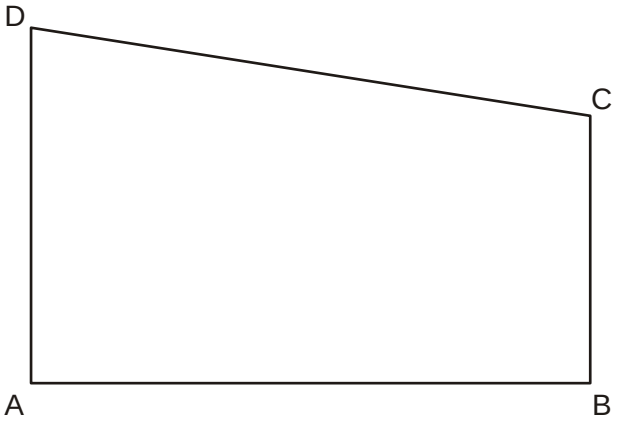
5. Use ruler and compasses only to answer this question.
Leave in all your construction lines.

(a) The line PQ is one side of an **equilateral** triangle PQR.

Complete the triangle.

[1]

(b)



The diagram shows a scale drawing, ABCD, of a garden.
The scale is **1 cm to 5 m**.

A rose bush, R, is:

- Equidistant from AD and DC.
- 30 m from B.

Construct and label the position of R.

[3]