

1 Perpendicular bisector

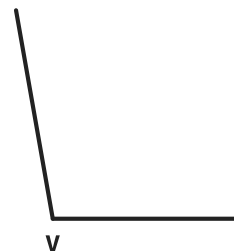
- a) Construct the perpendicular bisector of AB. Leave your arcs.
- b) What angle does your line make with AB?



- a) arcs from A and B, the same radius
- b) 90° (a right angle)

2 Angle bisector

- Angle V is 100° .
- a) Construct the bisector of angle V. Leave your arcs.
- b) Measure one of the two angles you have made.



- a) arcs from V, then from the two arms
- b) 50°

3 Perpendicular through a point

- a) Construct the perpendicular from P to the line. Leave your arcs.
- b) Measure the shortest distance from P to the line.

X P

- a) arcs from P cut the line twice, then bisect
- b) 2.0 cm

4 Constructing triangles

- a) Construct triangle ABC with AB = 3 cm, AC = 2.5 cm and BC = 2.5 cm. Leave your arcs.
- b) Measure angle ABC.



- a) AB, then arcs of 2.5 cm from A and from B
- b) 53° (51° to 55°)

Constructions and loci

revision mat answers

Foundation B

5 Constructing triangles

- A is marked on the line. AB = 3.5 cm, angle A is 50° and AC = 2.5 cm.
- a) Draw triangle ABC accurately.
- b) Measure BC.



- a) AB, then 50° at A and 2.5 cm along that line
- b) BC = 2.7 cm (2.6 to 2.8 cm)

6 Loci: a fixed distance

- A dog is tied to a post at P with a 3 m lead. 1 cm represents 2 m.
- a) Draw the edge of the region the dog can reach.
- b) Can the dog reach its bowl at T? Explain.

X P

• T

- a) a circle, centre P, radius 1.5 cm
- b) No: T is 2 cm (4 m) from P

7 Loci: equal distances

- a) Construct the locus of points the same distance from A and B. Leave your arcs.
- b) Mark a point C on your line. Measure CA and CB.

X A

X B

- What do you notice?
- a) the perpendicular bisector of AB
- b) CA and CB are the same length

8 Loci: regions

- a) Draw the line inside garden ABCD that is 1 m from DC.
- b) Shade the part of the garden that is less than 1 m from DC.



1 cm represents 1 m

- a) a line 1 cm below DC
- b) between DC and your line