Maths-it Podcast H-19

Maths-it Podcast

Higher GCSE Revision

Constructions and loci

Topics

Standard ruler and compasses constructions - Constructing triangles - Drawing Loci

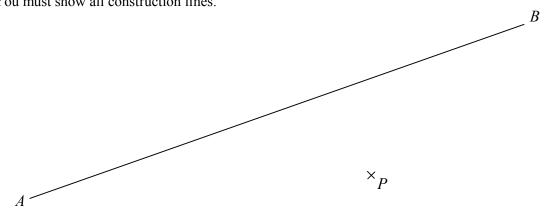
Questions

1. Use ruler and compasses to **construct** an angle of 30° at *A*. You must show **all** construction lines.

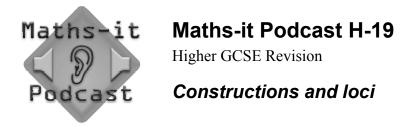
A

(Total 3 marks)

2. Use a ruler and compasses to **construct** the perpendicular to the line segment *AB* that passes through the point *P*. You must show all construction lines.



(Total 2 marks)



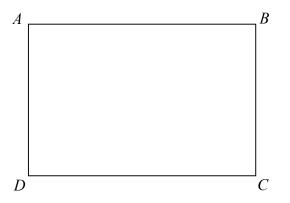
3. The diagram represents a rectangular garden *ABCD*.

The scale of the diagram is 1 cm represents 1 m.

A tree is to be planted in the garden so that it is

nearer to *A* than to *C*, within 5 m of point *B*.

On the diagram, shade the region where the tree may be planted.



(Total 3 marks)

4. Triangle *ABC* has the following properties,

Length AB = 8cm Length BC = 5cm Angle $ABC = 60^{\circ}$

(a) Construct triangle *ABC*.

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Triangle DEF has the following properties,

Length DE = 8cm Length EF = 5cm Angle $FDE = 30^{\circ}$

(b) Use diagrams to explain why two different triangles may be constructed using this information

(3) (Total 6 marks)