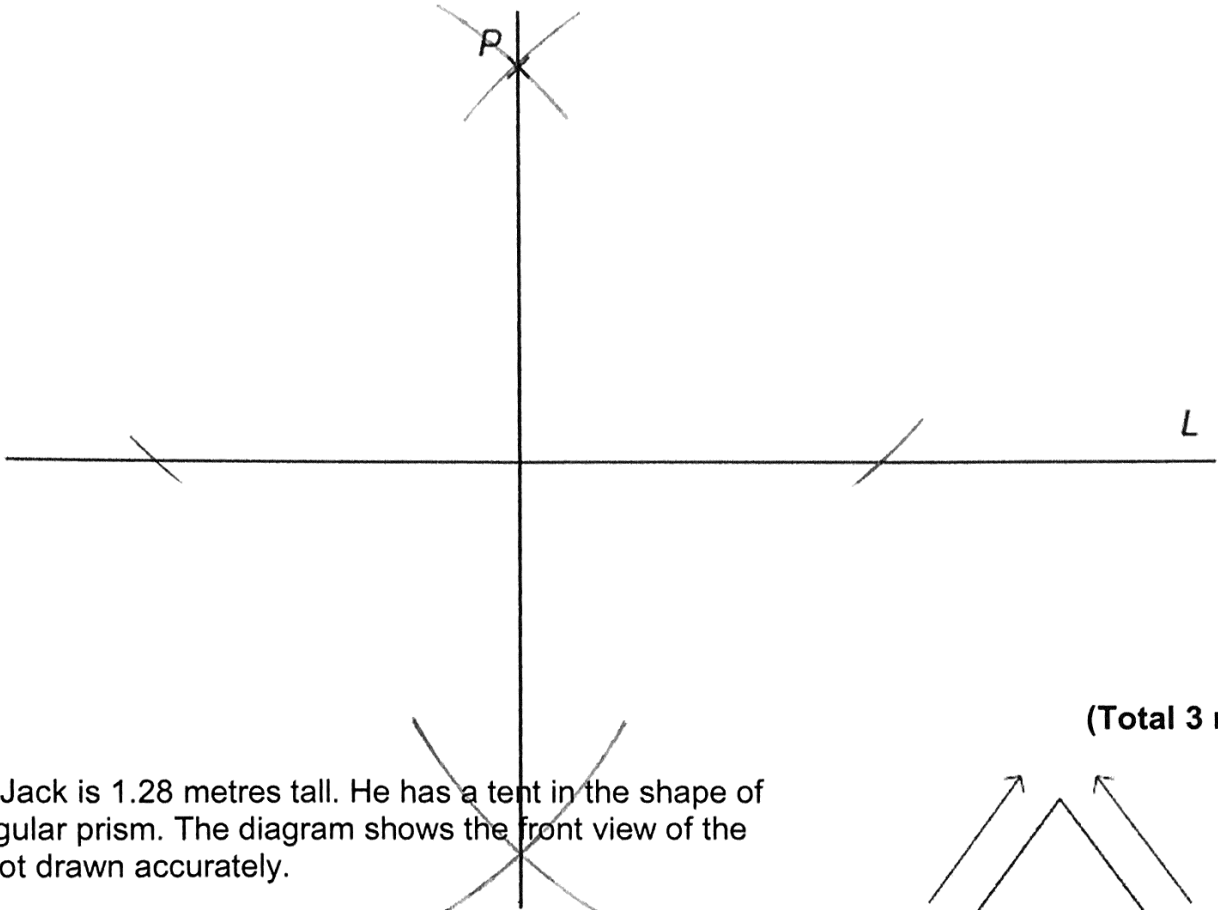


Construction and Loci - HIGHER



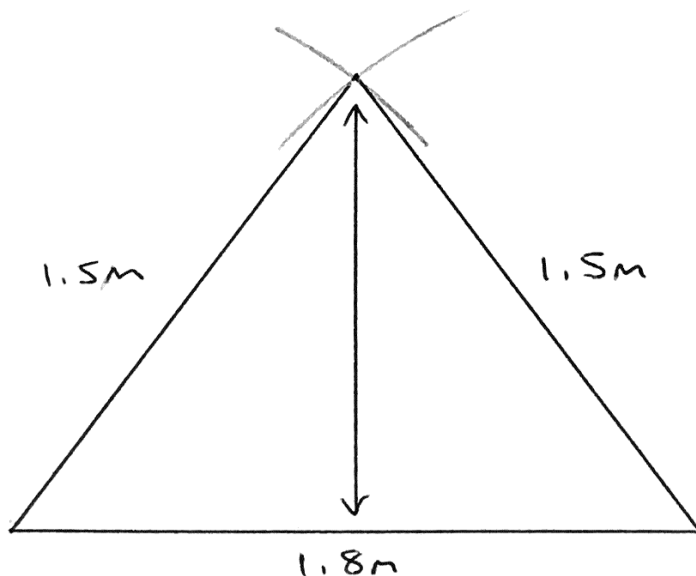
Q1. You will need a ruler and a pair of compasses to answer this question. Construct the perpendicular **from** point *P* to the line *L*. You **must** show your construction arcs.



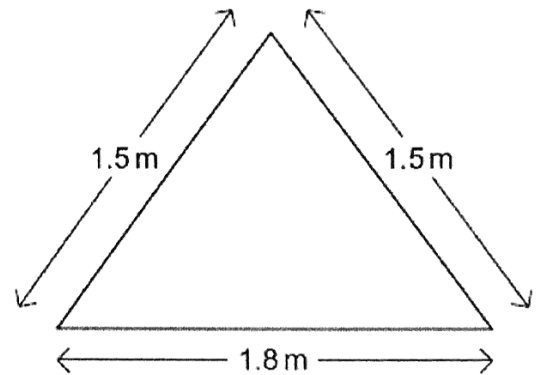
Q2. Jack is 1.28 metres tall. He has a tent in the shape of a triangular prism. The diagram shows the front view of the tent. Not drawn accurately.

Draw a scale drawing to work out if Jack can stand up in the middle of the tent. Show how you decide.

Scale: 1 cm represents 20 cm



(Total 3 marks)



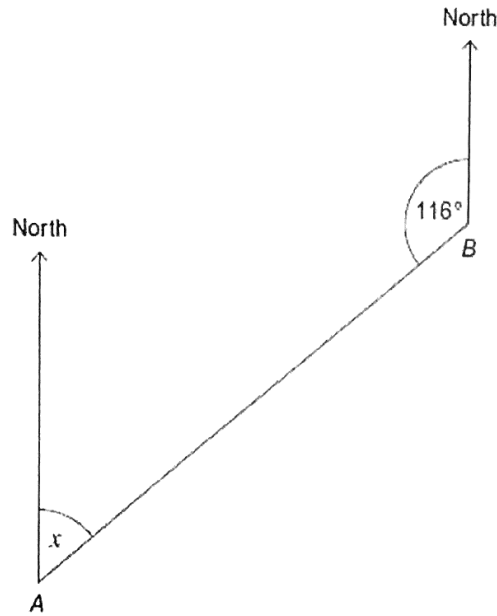
$$180 \text{ cm} \div 20 \text{ cm} = 9 \text{ cm}$$

$$150 \div 20 = 7.5 \text{ cm}$$

$5.9 \text{ cm} \times 20 = 1.18 \text{ m}$
 Jack will not be able to stand up.

(Total 3 marks)

Q3. The diagram shows the positions of towns A and B. Not drawn accurately.



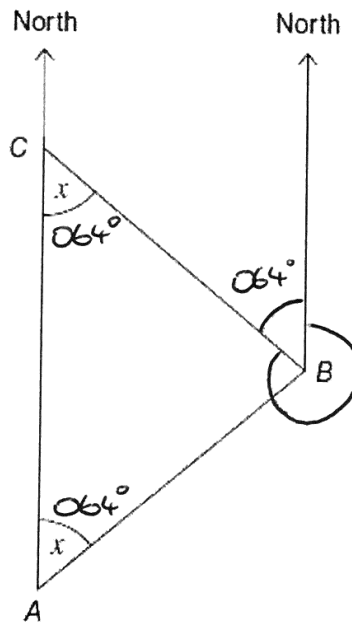
(a) Circle the value, in degrees, of angle x .

- 44 46 54 56 **64** 66

(b) Write down the 3-figure bearing of B from A. (1)

Answer 064 degrees

(c) Town C is due North of A. Angle $ACB = x$. Not drawn accurately (1)



Work out the 3-figure bearing of C from B.

..... $360 - 64 = 296^\circ$

.....

Answer 296 °

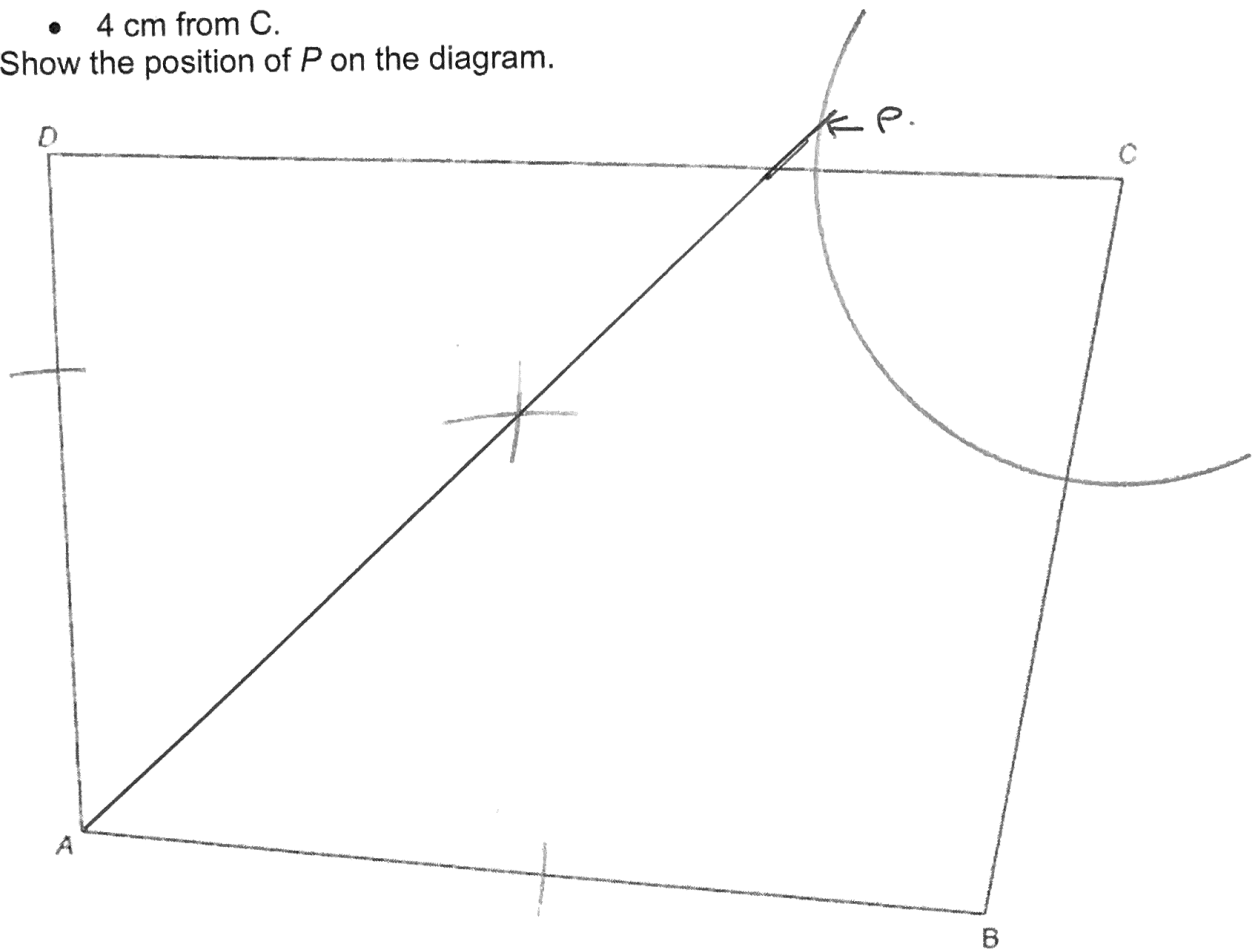
(3)

(Total 5 marks)

Q4. Use ruler and compasses to answer this question. Point P is

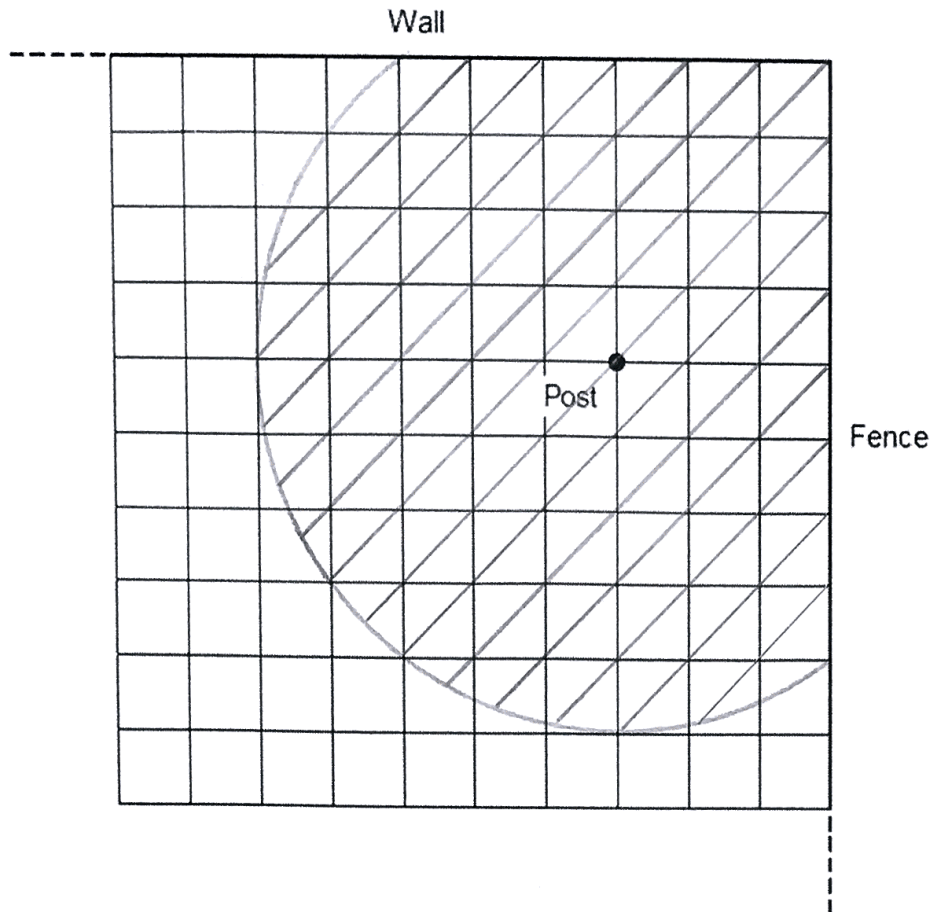
- the same distance from AB and AD
- 4 cm from C .

Show the position of P on the diagram.



(Total 3 marks)

Q5. The scale drawing shows a post which is 1.5 metres from the fence.



(a) How far is the post from the wall?

..... Each square represents 0.5 m

Answer 2 metres
(1)

(b) A pony is tied to the post by a rope. The pony can reach 2.5 metres from the post. On the scale drawing, show accurately the area that the pony can reach.

(2)

(c) Work out the scale of the drawing as a ratio. Give your answer in its simplest form.

..... 0.5 m : 1 cm

..... 50 cm : 1 m

Scale 1 : 50
(3)

(Total 6 marks)

(Total for test = 20 marks)