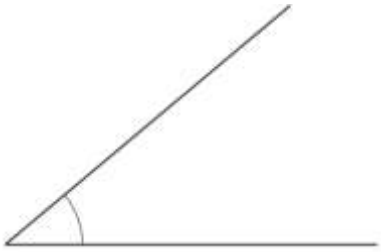
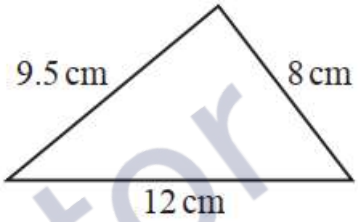
Past Papers Worksheet P2 Construction and Scale Drawing IGCSE Mathematics 0580



1. Measure the marked angle. [1]
   0580/22/F/M/22 Q1)



2. Using a ruler and compasses only, construct this triangle. Leave in your construction arcs.
   The side of length 12cm has been drawn for you. [2]
   0580/22/F/M/22 Q6)



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3. A field, *ABC*, is in the shape of a triangle.
   AC = 500m and *BC* = 650m.
   Using a ruler and compasses only, complete the scale drawing of the field *ABC*.
   Leave in your construction arcs.
   Use a scale of 1 cm to represent 100m.
   The side *AB* has been drawn for you. **0580/21/O/N/20 Q2**



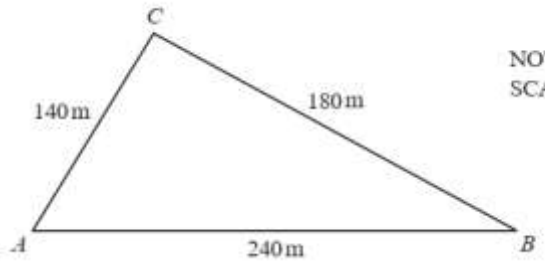
Scale: 1 cm to 100 m

[3]

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4. The boundary of a park is in the shape of a triangle ABC.
   AB = 240 m, BC = 180 m and CA = 140 m.
   In part (a), show clearly all your construction arcs.
   Using a scale of 1 centimetre to represent 20 metres, construct an accurate scale drawing of triangle ABC. The line AB has already been drawn for you.
   0580/04/O/N/09 Q4) (a)(i)



NOT TO SCALE



[2]

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5. In triangle ABC, BC = 7.6cm and AC = 6.2cm.
   Using a ruler and compasses only, construct triangle ABC.
   Leave in your construction arcs.
   The side AB has been drawn for you. **0580/23/O/N/20 Q3**



[2]

6. The line AB is one side of an equilateral triangle ABC.
   Using a straight edge and compasses only, construct triangle ABC. [2] **0580/22/F/M/17 Q2**

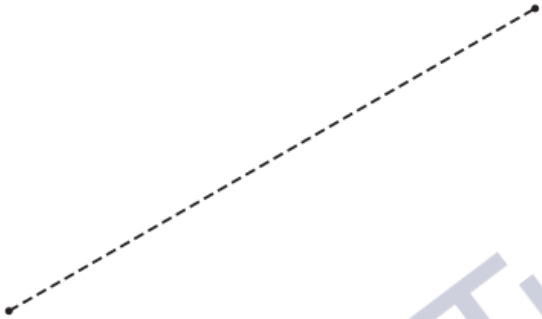


[2]

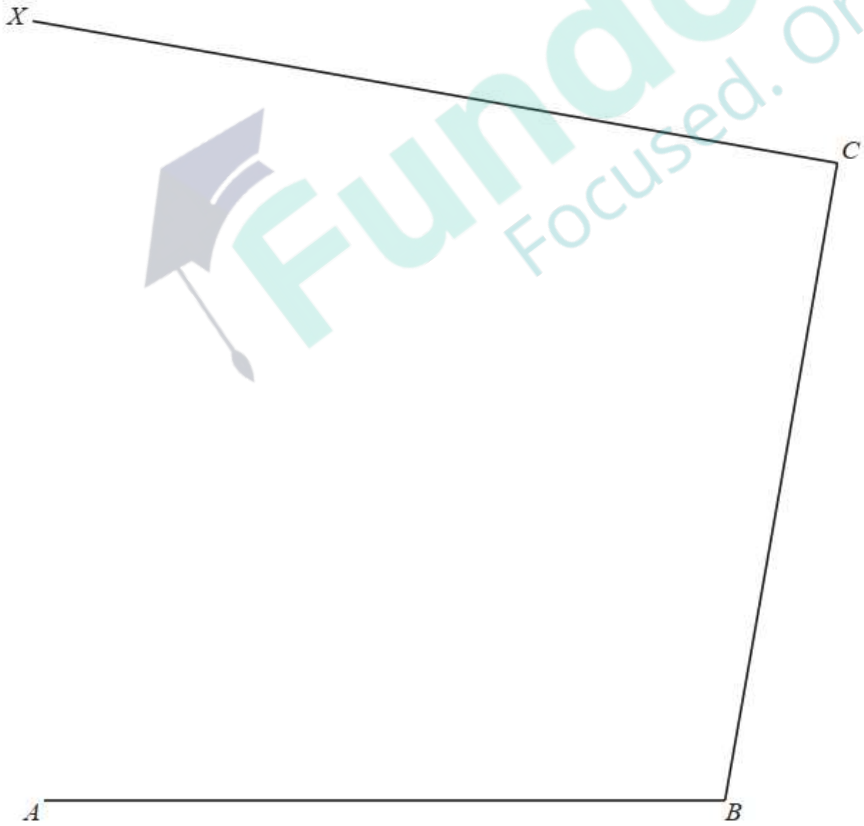
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7. A rhombus has side length 6.5cm.
   The rhombus can be constructed by drawing two triangles.
   Using a ruler and compasses only, construct the rhombus.
   Leave in your construction arcs.
   One diagonal of the rhombus has been drawn for you [2] **0580/22/M/J/21 Q6)**



8. The diagram shows an incomplete scale drawing of a market place, ABCD, where D is on CX. The scale is 1 centimetre represents 5 metres. A D lies on CX such that angle DAB = 75°.



Scale : 1 cm to 5 m

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(a) On the diagram, draw the line AD and mark the position of D. [2]

(b) Find the actual length of the side BC of the market place. [2]

0580/42/F/M/19 Q4(b)

9. The scale drawing shows two boundaries, AB and BC, of a field ABCD.
   The scale of the drawing is 1cm represents 8m.
   (a) The boundaries CD and AD of the field are each 72m long.
   (i) Work out the length of CD and AD on the scale drawing. [1]
   (ii) Using a ruler and compasses only, complete accurately the scale drawing of the field. [2]



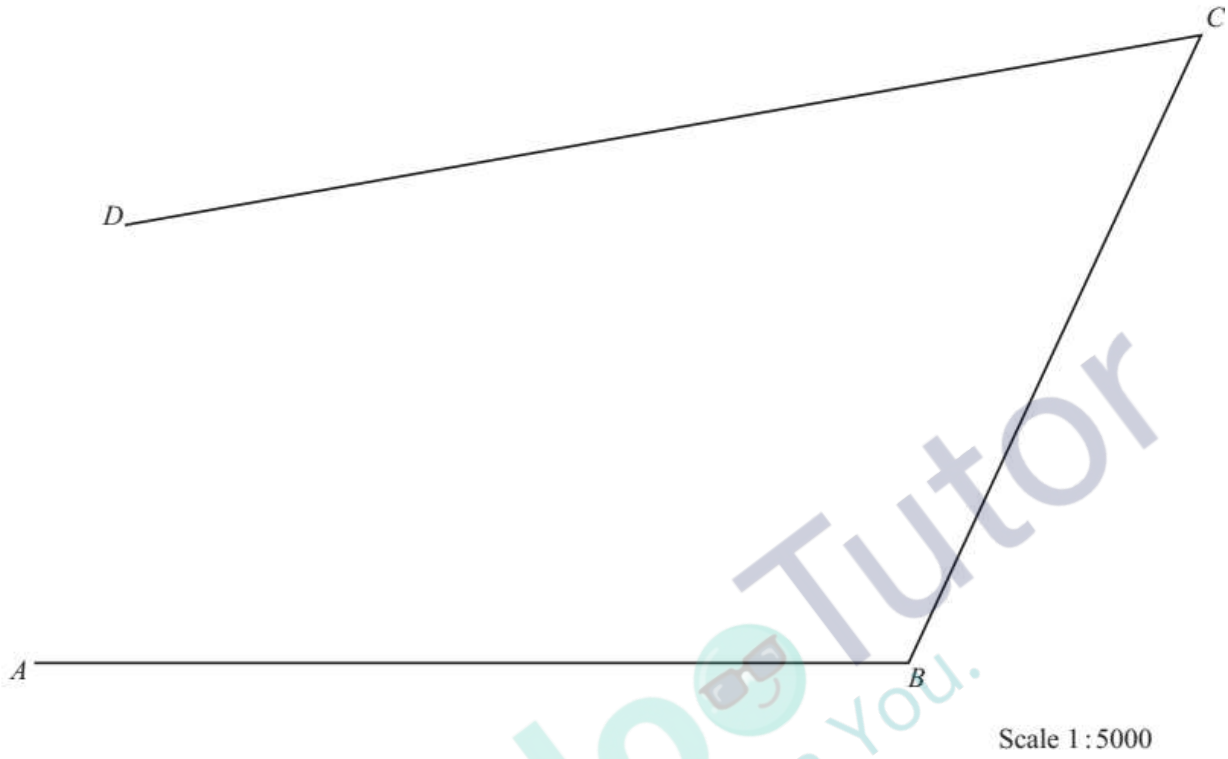
Scale: 1 cm to 8 m

0580/41/M/J/18 Q2 (a)(i)

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10. The diagram is a scale drawing of three straight roads, AB, BC and CD.
The scale is 1:5000.
Find the actual length of the road BC. Give your answer in metres. [2]



0580/41/M/J/15 Q10(a)

11. The scale drawing shows the positions of two towns, *P* and *Q*.
The scale is 1cm represents 4km.





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(a) Find the actual distance between town P and town Q. [2]

(b) ~~Measure the bearing of town Q from town P~~. [1]

(c) ~~Town X is 28km from town P on a bearing of 140°.~~

~~On the scale drawing, mark the position of town X~~. [2]

0580/21/O/N/21 Q6)

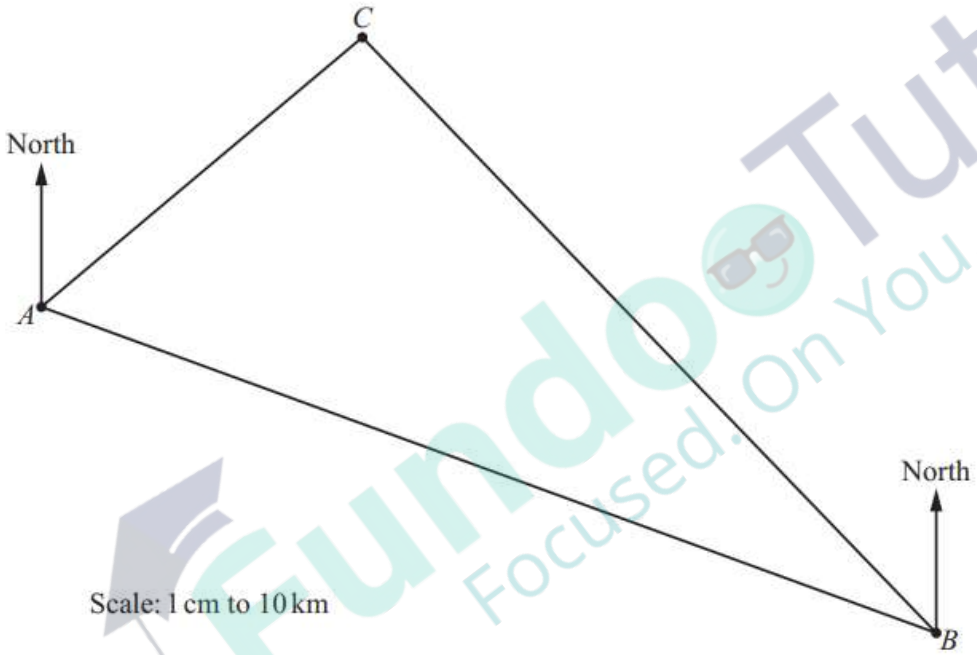
12. The scale drawing shows the positions of three towns A, B and C on a map.

The scale of the map is 1 centimetre represents 10 kilometres.

(a) Find the actual distance AB. [1]

(b) ~~Measure the bearing of A from B~~. [1]

(c) Write the scale 1cm to 10km in the form 1:n. [1]



0580/41/O/N/15 Q7

13. In the scale drawing, *P* is a port, *L* is a lighthouse and *S* is a ship.

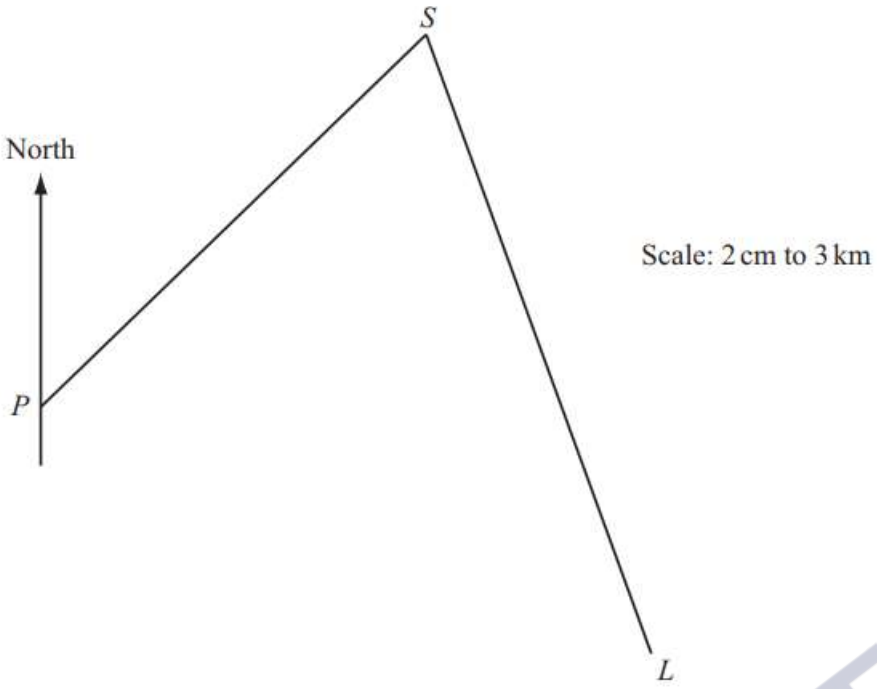
The scale is 2 centimetres represents 3 kilometres.

(a) ~~Measure the bearing of S from P~~. [1]

(b) Find the actual distance of S from L. [2]

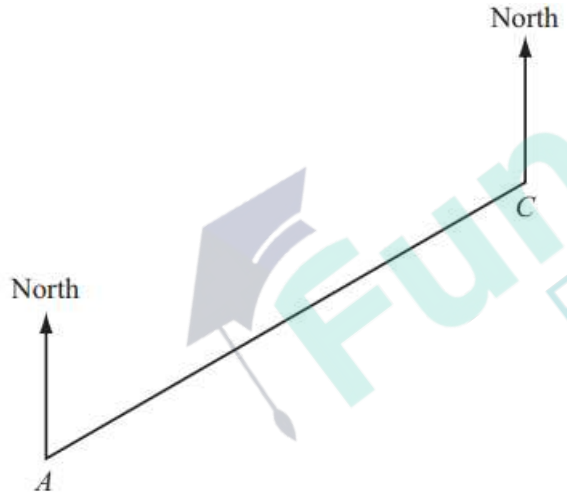
(d) Work out the scale of the map in the form 1:n. [2]

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0580/41/M/J/14 Q5

14. The scale drawing shows the positions of two towns A and C on a map.
On the map, 1 centimetre represents 20 kilometres.



(i) Find the distance in kilometres from town A to town C. [2]

(ii) ~~Measure and write down the bearing of town C from town A~~. [1]

(iii) ~~Town B is 140 km from town C on a bearing of 150~~°.
~~Mark accurately the position of town B on the scale drawing.~~ [2]

~~(iv) Find the bearing of town C from town B .~~ **~~[1]~~**

(v) A lake on the map has an area of 0.15 cm^2.
Work out the actual area of the lake. [2]

0580/42/M/J/11 Q3

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Answers

Q1) 40^{o}

Q8) 47.5 [B1 for 9.5cm seen]

Q9) 9

Q10) 475 or 465 to 485 [B1 for 9.3 to 9.7 [cm] seen]

Q11) (a) their measurement PQ[in cm] multiplied by 4 ,(b)065 (c) X correctly placed 7 cm from P on a bearing of 140

Q12) (a) 123 to 127 (b) 288 to 292 (c) [1:] 1 000 000

Q13) (a) [0]44 to [0]48 (b) 12.6 to 13.2 [B1 for 8.4 to 8.8 seen] (d) 1 : 150000

Q14) (a) (i) 142 to 150 [B1 for 7.1 to 7.5 seen] (ii) (0)59 to (0)63 (iii) 148o to 152o drawn Distance 6.8 to 7.2 cm drawn (iv) 328° to 332° (v) 60

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