

Delta 2

Unit 9 Review (Calculated Allowed)

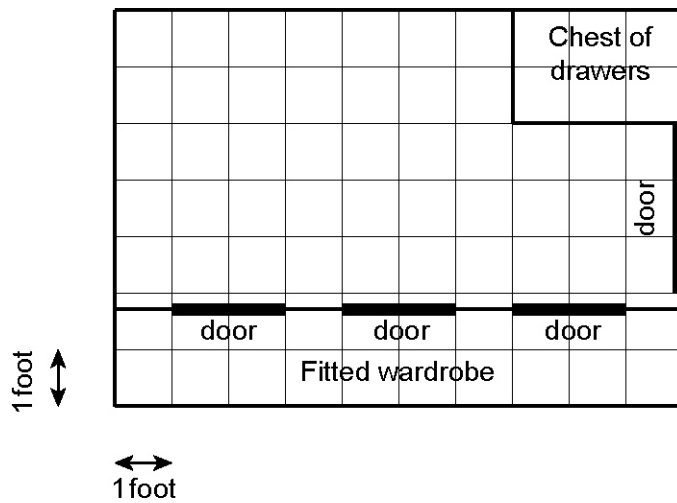
Scale drawings and measures

How well did you do:

Scale Drawings and Measures	Score = $\frac{\quad}{45}$	
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<i>Topics/skills which need to be revisited:</i>	<i>Questions from the review</i>	<i>Further practice from Delta 2</i>
• Draw diagrams to scale • Use and interpret maps	• 1 • 3a	• P215 Q1,3 • P216 Q5
• Solve angle problems involving bearings • Measure and show bearings on maps	• 3bc • 7,8	• P216 Q1,2,3 • P216 Q4
• Use and change to equivalent scales	• 2	• P215 Q2,4
• Know and use the criteria for similarity of triangles • Solve geometric problems using side and angle properties of special triangles. Know that triangles given SSS, SAS, ASA or RHS are unique	• 5 • 6	• P218 Q5 • P221 Q8
• Solving Geometry problems • Solve problems using properties of angles, of parallel and intersecting lines, and of triangles and other polygons	• 4 • 9	• P221 Q9 • P218 Q7,8 • P222 Q13

- 1 Here is a scale plan of Julie's bedroom.



- a Her bed is 6 feet by 3 feet. Draw it to scale to fit into the corner and along the wall opposite the wardrobe.

(2)

- b Will the wardrobe doors open? Explain your answer.

.....

(2)

(Total 4 marks)

- 2 Complete the scale equivalents.

- a 1 : 40 000 is equivalent to 1 cm :m

(2)

- b 1 m : 5 km is equivalent to 1 :

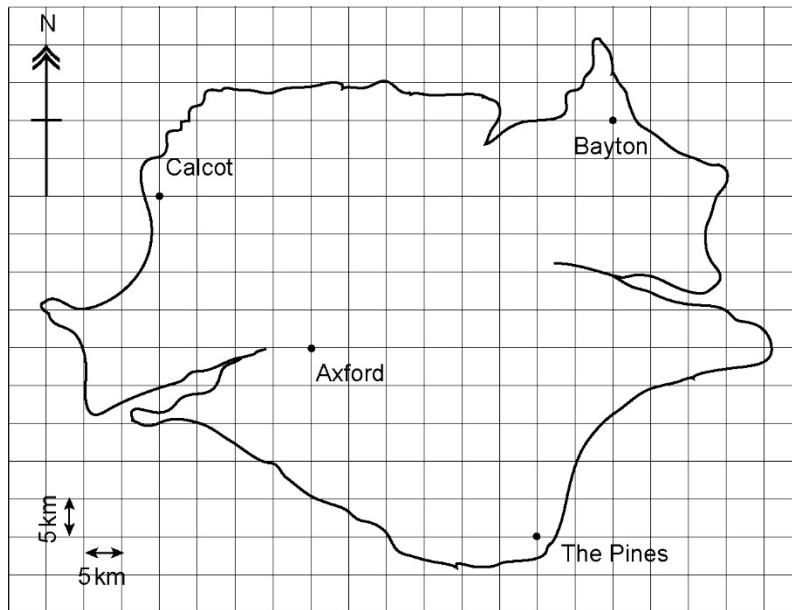
(2)

- c 2 : 350 is equivalent to 1 mm :cm

(2)

(Total 6 marks)

3 This is a map of an island.



a What is the real distance between Axford and Bayton?

HINT: Do **not** use your ruler to calculate this.

.....(3)

b What is the approximate compass direction from Axford to Calcot?

.....(1)

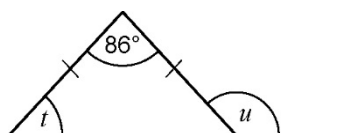
c A microlight travels from Bayton to The Pines. What is the three-figure bearing the microlight should take?

.....(2)

(Total 6 marks)

4 Calculate the marked angles in these diagrams.

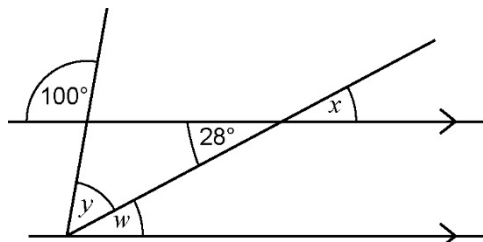
a



angle t =

angle u =(3)

b



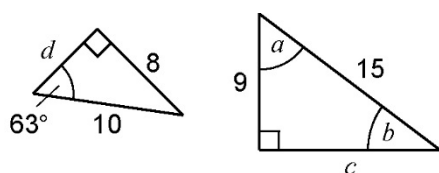
angle w =

angle x =

angle y =(4)

(Total 7 marks)

5 These triangles are similar.



a Work out the sizes of the angles a and b .

angle a =

angle b =

(3)

b Work out the lengths of the sides c and d .

side c =

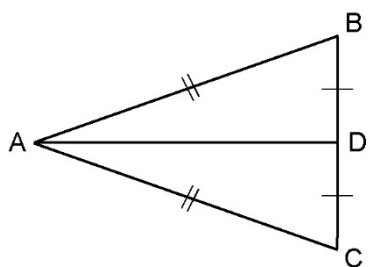
side d =

(4)

(Total 7 marks)

6 ABC is an isosceles triangle.

D is the midpoint of BC.



- a** Show that the triangles ABD and ACD are congruent, giving reasons for each of the steps made. Write all of your working out in the space below.

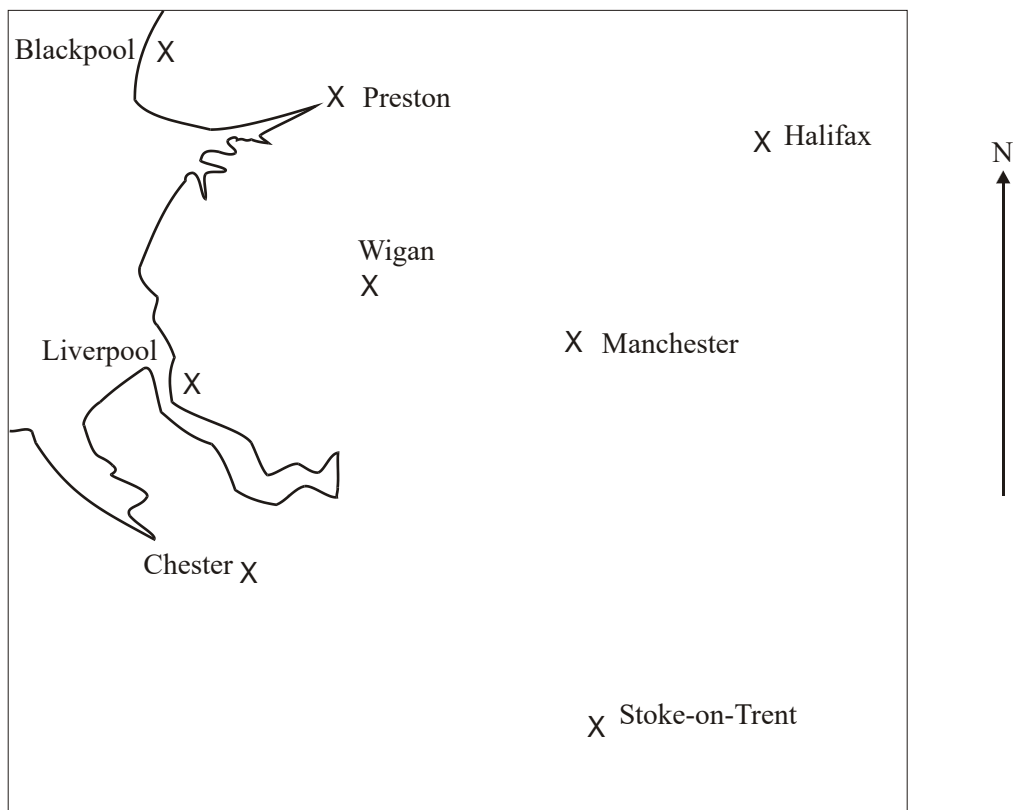
(4)

- b** What is the size of angle BDA?

.....(1)

(Total 5 marks)

7. This is a map of part of Northern England.



Scale: 1 cm represents 10 km

- a** A plane flies in a straight line from Preston to Stoke-on-Trent.
How far does it fly? Give your answer in kilometres.

..... km

(2)

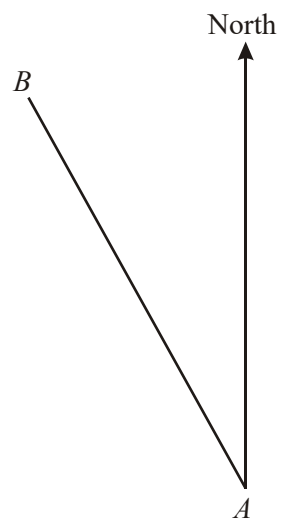
- b** Measure and write down the bearing of Manchester from Preston.

.....°

(1)

(Total 3 marks)

8.



- a** Measure and write down the bearing of B from A .

.....°

(2)

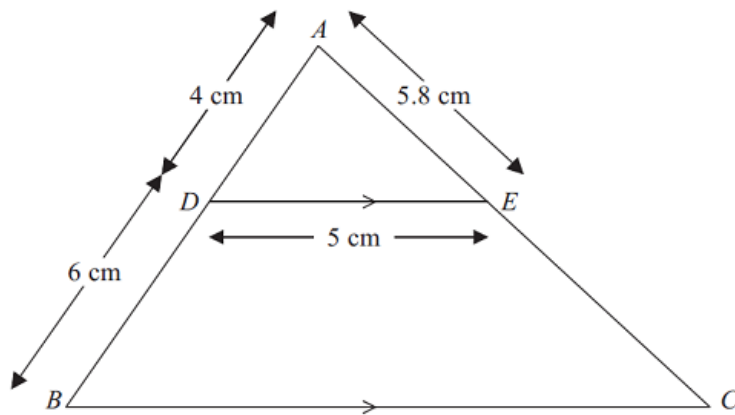
- b** On the diagram, draw a line on a bearing of 107° from A .

(1)

(Total 3 marks)

9. ABC is a triangle

Diagram NOT accurately drawn



D is a point on *AB* and *E* is a point on *AC*.

DE is parallel to *BC*.

AD = 4 cm, *DB* = 6 cm, *DE* = 5 cm, *AE* = 5.8 cm.

Calculate the perimeter of the trapezium *DBCE*.

(Total 4 marks)

[End of Review]