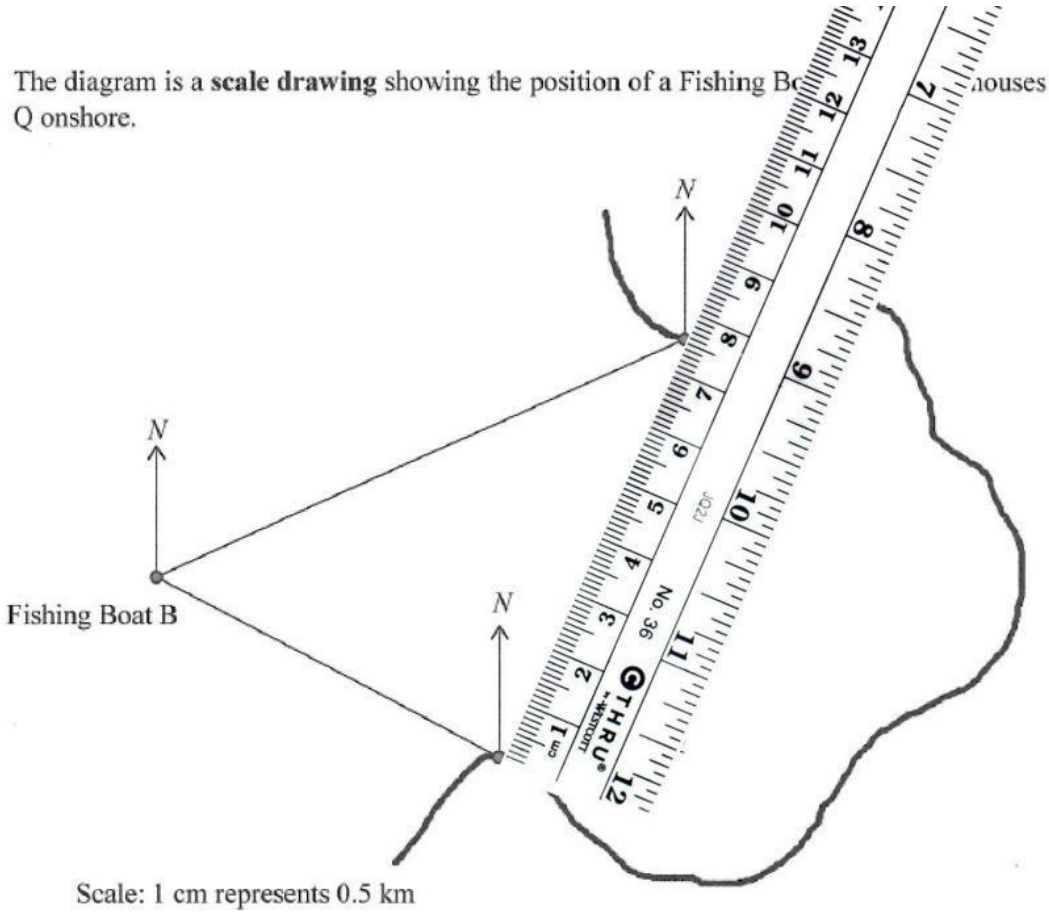
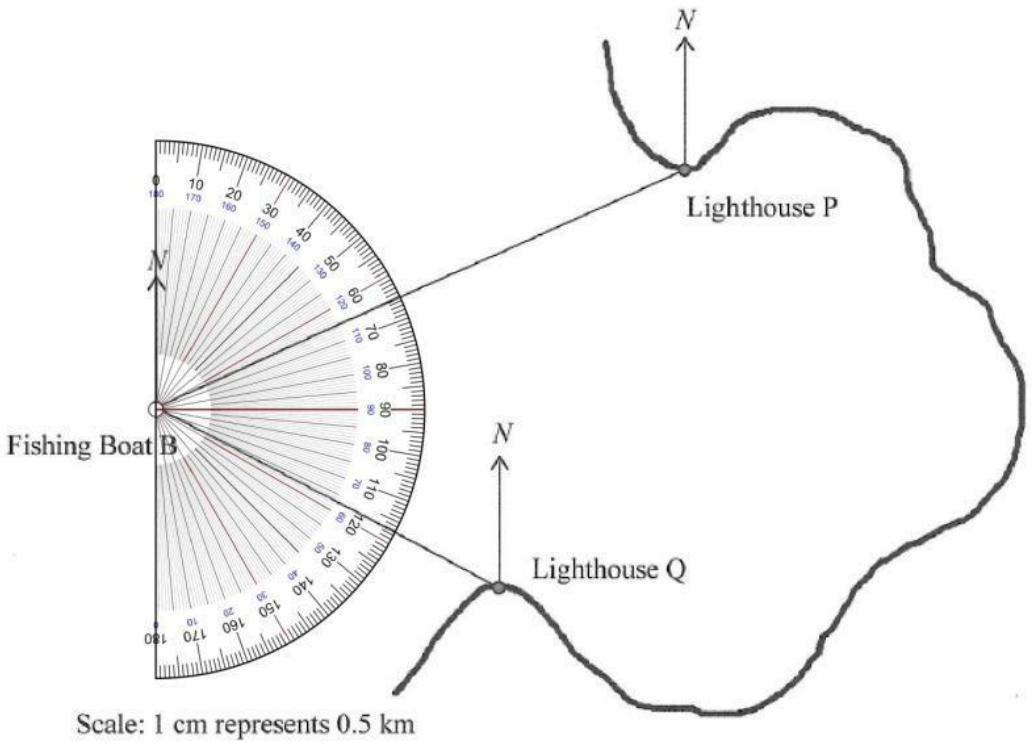
10. The diagram is a **scale drawing** showing the position of a Fishing Boat B and Lighthouses P and Q onshore.



Scale: 1 cm represents 0.5 km

(a) Calculate the shortest distance (in km) between Lighthouse P and Lighthouse Q. [2]

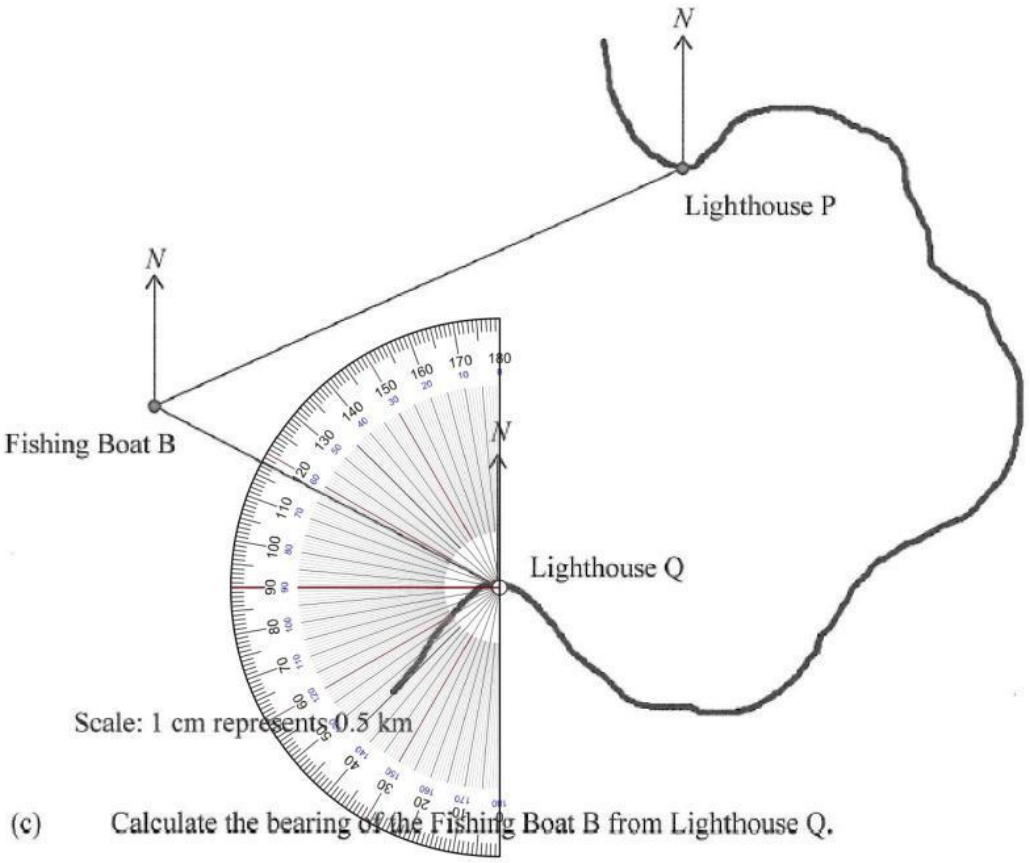
10. The diagram is a **scale drawing** showing the position of a Fishing Boat B and Lighthouses P and Q onshore.



Scale: 1 cm represents 0.5 km

(b) Measure the bearing of Lighthouse P from the Fishing Boat B. [1]

10. The diagram is a **scale drawing** showing the position of a Fishing Boat B and Lighthouses P and Q onshore.

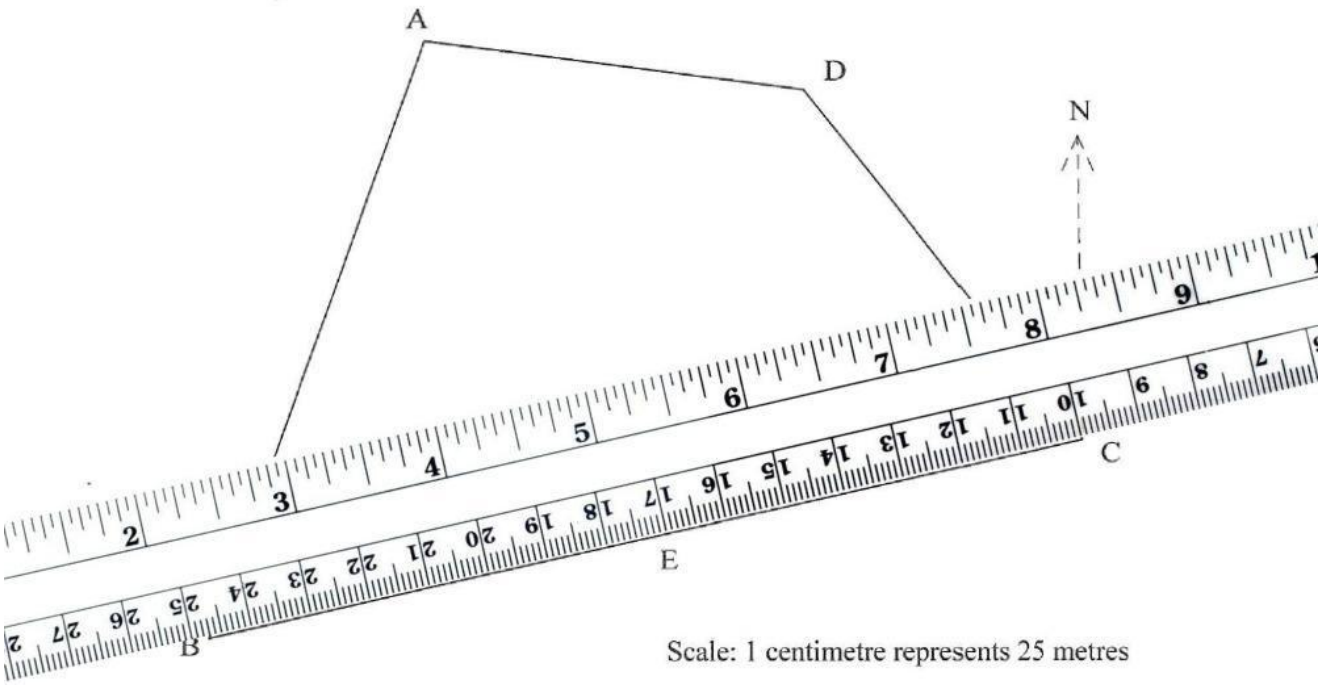


(c) Calculate the bearing of the Fishing Boat B from Lighthouse Q. [2]

Another fishing boat sails west a distance of 5.8 km from Lighthouse P.

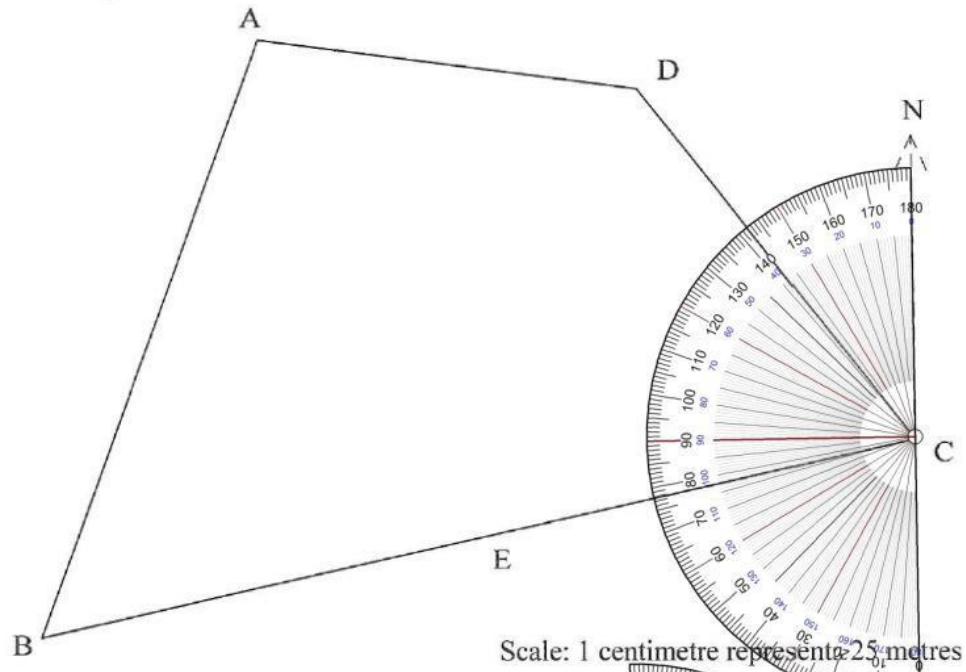
(d) Calculate the length west from Lighthouse P that this would be on the scale drawing. [2]

10. The diagram represents a surveyor's **scale drawing** of a piece of property.



(a) Calculate the shortest distance (in metres) from B to D. [2]

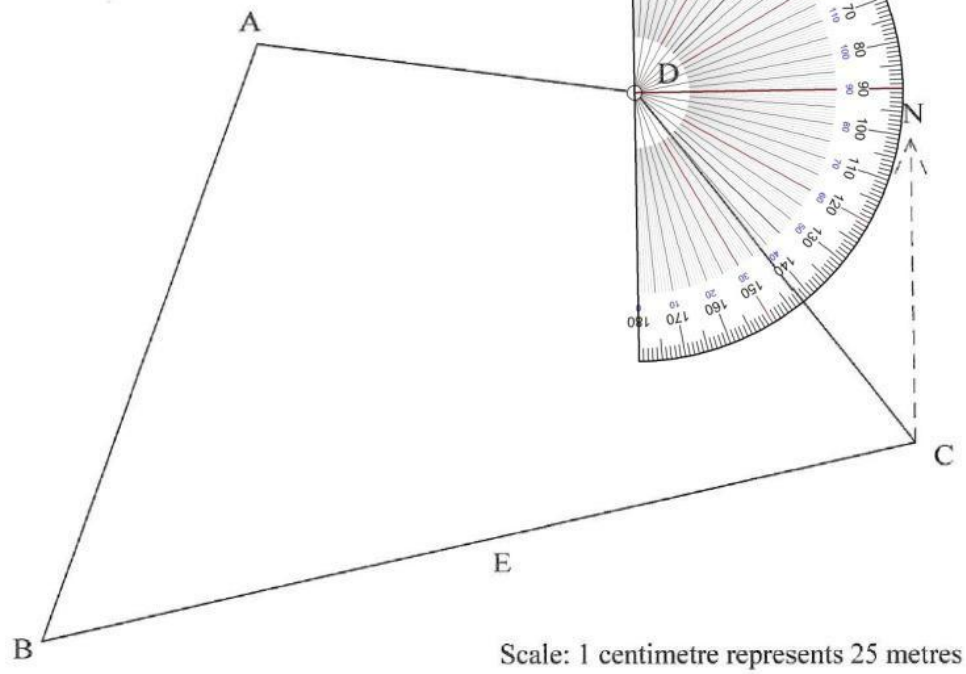
10. The diagram represents a surveyor's **scale drawing** of a piece of property.



Scale: 1 centimetre represents 25 metres

(b) Write down the bearing of D from C. [1]

10. The diagram represents a surveyor's **scale drawing** of a piece of property.



Scale: 1 centimetre represents 25 metres

(a) Calculate the shortest distance (in metres) from B to D. [2]

(b) Write down the bearing of D from C. [1]

(c) Calculate the bearing of C from D. [1]

A roadway of length 80 m is to be constructed on the property.

(d) Calculate the length that this roadway will be on the scale drawing. [2]

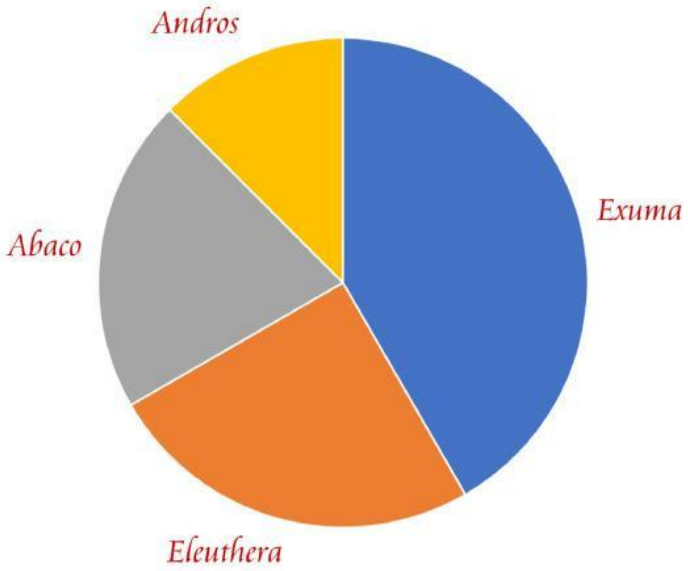
10. A group of 24 tourists were asked which of the Family Islands they enjoyed most. The results are shown in the table below.

Island	Number of Tourists	Angle in Pie Chart
Exuma	10	150°
Eleuthera	6	90°
Abaco	5	
Andros		

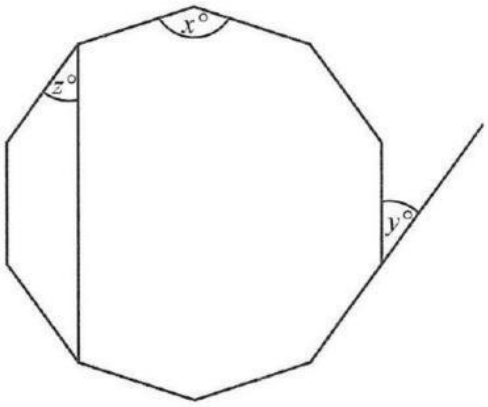
(a) Copy and complete the table. [4]

(b) (i) Using a ruler and compass, construct a circle with a 4 cm radius. [1]

(ii) Draw an accurate pie chart to represent the information in the completed table. [4]



10. The polygon below is a regular decagon.



Calculate the size of the angles.

(a) x [2]

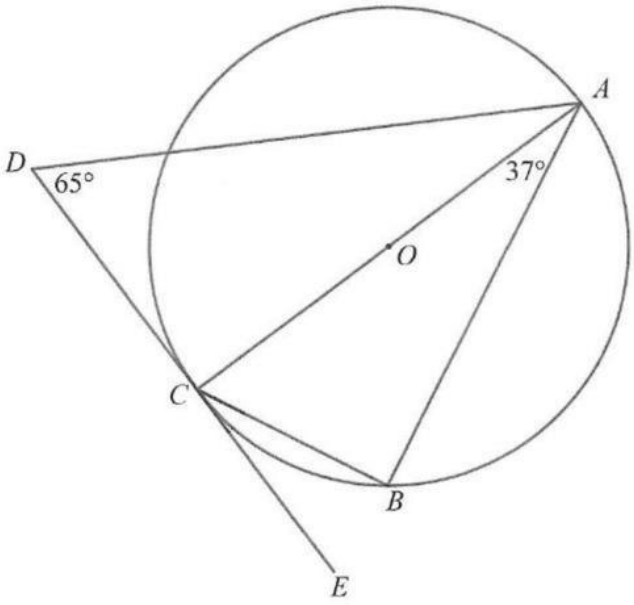
(b) y [1]

(c) z [2]

10. Circle ABC has a centre at O.

DE is tangent to the circle at C.

Angle $BAC = 37°$ and angle $ADC = 65°$.



NOT TO SCALE

Find angle

(a) ABC, [1]

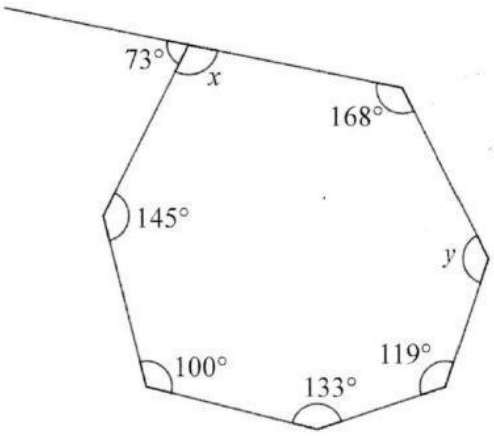
(b) BCE, [1]

(c) DAC. [1]

10. Factorise:

$24x^3y^2 - 18x^2y^2 + 30xy^2$ [3]

10.



NOT TO SCALE

(a) Find the sizes of angles x and y. [3]

x =

Number of Triangles in This Polygon =

Sum of Interior Angles =

y =

(b) The sum of 5 interior angles of an octagon is 639°. If the remaining angles are equal, find the size of each. [3]

Number of Triangles in An Octagon =

Sum of Interior Angles of an Octagon =

Sum of the Three Remaining Angles =

The Size of Each Angle =