

Angles and Polygons

Calculator | 30 minutes | Total marks: 25

Name

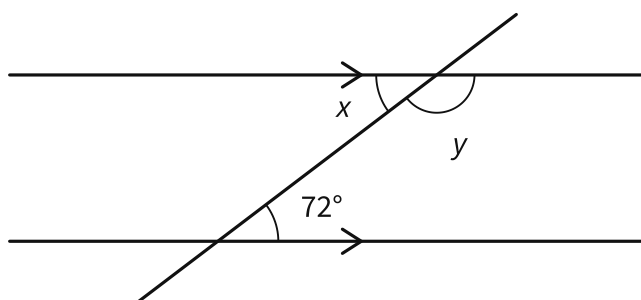
Class

- 1 Three angles of a quadrilateral are 85° , 110° and 95° .

Work out the size of the fourth angle.

Answer $^\circ$ [2 marks]

- 2 The diagram shows two parallel lines crossed by a straight line.



Not drawn accurately

- (a) Write down the size of angle x .

Give a reason for your answer.

$x =$

[2 marks]

- (b) Work out the size of angle y .

Give a reason for your answer.

$y =$

[2 marks]

3

(a) Write down the name of a polygon with 6 sides.

Answer [1 mark]

(b) How many sides does an octagon have?

Answer [1 mark]

4

(a) Work out the sum of the interior angles of a pentagon.

Answer ° [2 marks]

(b) Work out the size of each interior angle of a regular octagon.

Answer ° [2 marks]

(c) Work out the size of each exterior angle of a regular decagon (10 sides).

Answer ° [1 mark]

(d) Each exterior angle of a regular polygon is 30° .

Work out the number of sides.

Answer [2 marks]

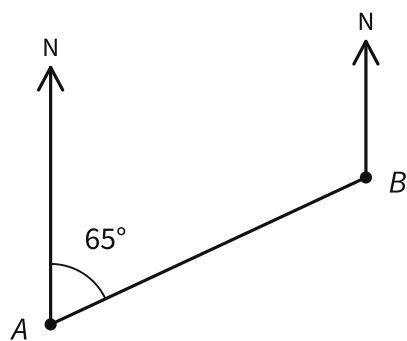
5

Four angles of a pentagon are 100° , 120° , 95° and 130° .

Work out the size of the fifth angle.

Answer ° [2 marks]

- 6 The diagram shows the positions of two boats, A and B .



Not drawn accurately

- (a) Write down the bearing of B from A .

Answer ° [1 mark]

- (b) Work out the bearing of A from B .

Answer ° [2 marks]

- 7 (a) On a map, 1 cm represents 2 km.

Two villages are 7.5 cm apart on the map.

Work out the actual distance between the villages.

Answer km [1 mark]

- (b) A different map has a scale of 1 : 50 000

A road is 4 cm long on this map.

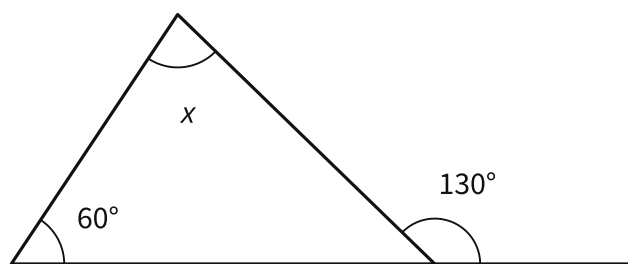
Work out the actual length of the road in kilometres.

Answer km [2 marks]

8

One side of the triangle has been extended.

Work out the size of angle x .



Not drawn accurately

$x =$ $^\circ$ [2 marks]

Question	Topic	RAG
1	I can find a missing angle in a quadrilateral	
2	I can use angles in parallel lines and give reasons	
3	I know the names of polygons	
4	I can use interior and exterior angles of polygons	
5	I can find a missing angle in a polygon	
6	I can work with bearings	
7	I can use a map scale	
8	I can use the exterior angle of a triangle	