

Angles and Polygons

ANSWERS

Calculator | 30 minutes | Total marks: 20

Name

Class

1 Angles in a quadrilateral add up to 360° .

Three angles of a quadrilateral are 90° , 90° and 100° .

Work out the size of the fourth angle.

$$360 - 280 \text{ (1)}$$

Answer 80 (1) ° [2 marks]

2 Write one name from the box next to each description.

hexagon

octagon

pentagon

quadrilateral

a polygon with 5 sides

pentagon (1)

a polygon with 6 sides

hexagon (1)

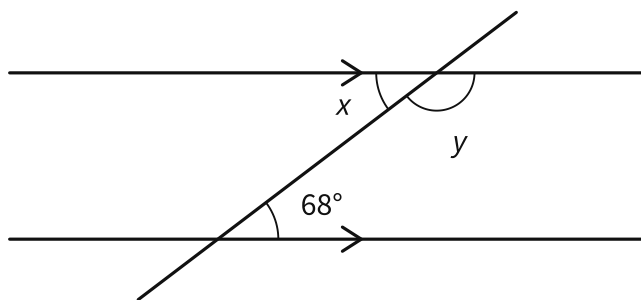
a polygon with 8 sides

octagon (1)

[3 marks]

3

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



Not drawn accurately

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

$x = 68$ (1) ° [1 mark]

- (b) Which word describes the pair of angles 68° and x ?

alternate corresponding co-interior

Answer alternate (1) [1 mark]

- (c) Angles x and y are on a straight line.

Work out the size of angle y .

$180 - 68$ (1)

$y = 112$ (1) ° [2 marks]

4

A pentagon can be split into 3 triangles.

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

3×180 (1)

Answer 540 (1) ° [2 marks]

5

The exterior angles of any polygon add up to 360° .

- (a) Work out the size of each exterior angle of a regular hexagon.

$360 \div 6$ (1)

Answer 60 (1) ° [2 marks]

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

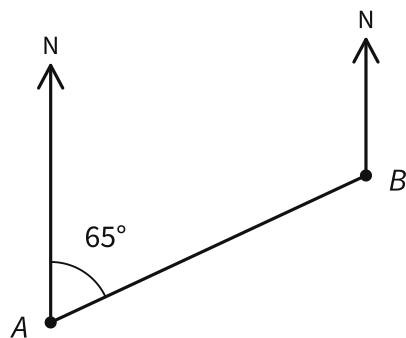
Answer 120 (1) ° [1 mark]

6

- (a) Write down the three figure bearing of East.

Answer 090 (1) ° [1 mark]

- (b) The diagram shows two boats, *A* and *B*.



Write down the bearing of *B* from *A*.

Answer 065 (1) ° [1 mark]

Not drawn accurately

7

On a plan, 1 cm represents 5 m.

- (a) A wall is 6 cm long on the plan.

Work out the actual length of the wall.

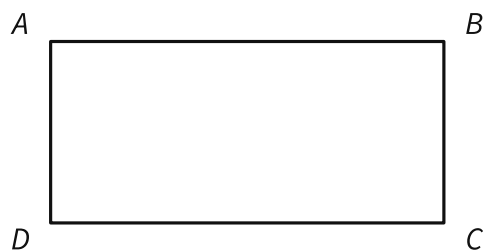
Answer 30 (1) m [1 mark]

- (b) A path is 20 m long.

Work out the length of the path on the plan.

Answer 4 (1) cm [1 mark]

8

 $ABCD$ is a rectangle.

- (a) Write down a side that is parallel to AB .

Answer DC (1) [1 mark]

- (b) Write down a side that is perpendicular to AB .

Answer AD or BC (1) [1 mark]

Question	Topic	RAG
1	I can find a missing angle in a quadrilateral	
2	I know the names of polygons	
3	I can use angles in parallel lines	
4	I can find the angle sum of a polygon	
5	I can find exterior and interior angles of a regular polygon	
6	I can write a bearing	
7	I can use a scale	
8	I can identify parallel and perpendicular lines	