

Symmetry & Shapes

Introduction to Lines & Angles / Rotational Symmetry / Lines of Symmetry / Planes of Symmetry

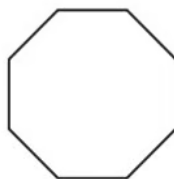
Easy (10 questions)	/16
Medium (9 questions)	/17
Hard (5 questions)	/9
Total Marks	/42

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Easy Questions

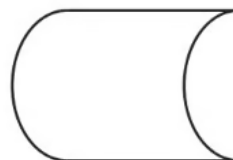
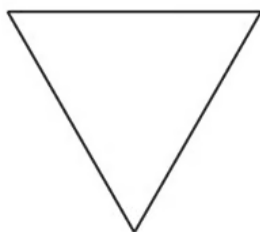
1



Write down the order of rotational symmetry of this regular octagon.

(1 mark)

2 (a)



On each shape draw all the lines of symmetry.

(3 marks)

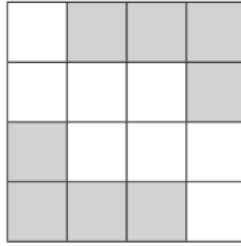
(b)



Write down the order of rotational symmetry of this shape.

(1 mark)

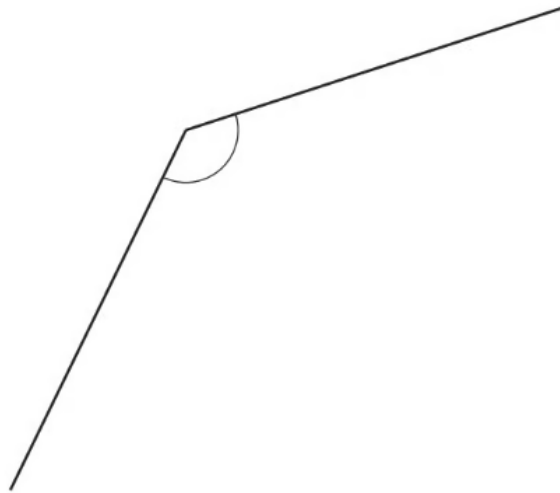
3



Write down the order of rotational symmetry of the diagram.

(1 mark)

4



i) Write down the mathematical name for this type of angle.

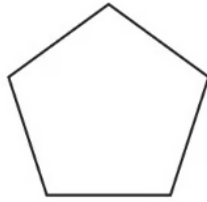
[1]

ii) Measure this angle.

[1]

(2 marks)

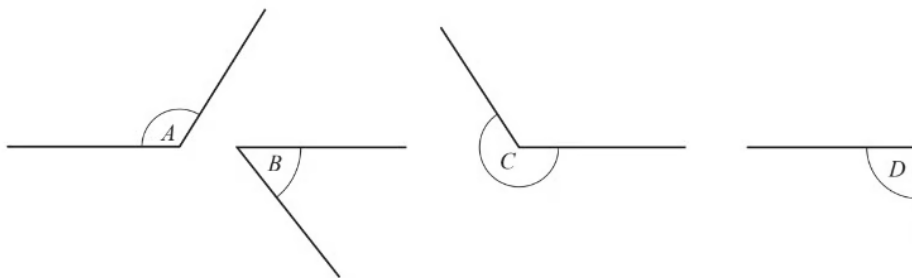
5



Write down the order of rotational symmetry of this regular pentagon.

(1 mark)

6

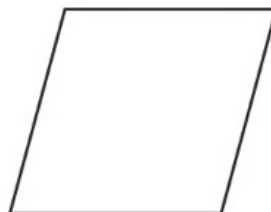


Complete the statement.

Angle is a reflex angle.

(1 mark)

7

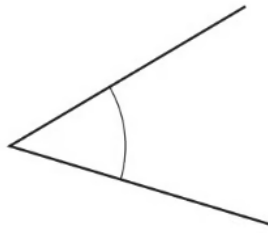


The diagram shows a rhombus

On the diagram, draw all the lines of symmetry

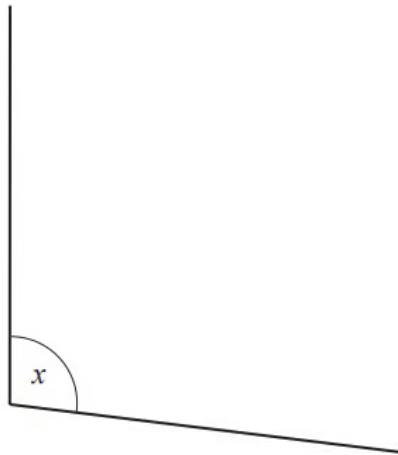
(2 marks)

8 Write down the mathematical name of this type of angle.



(1 mark)

9



i) Measure the size of angle x .

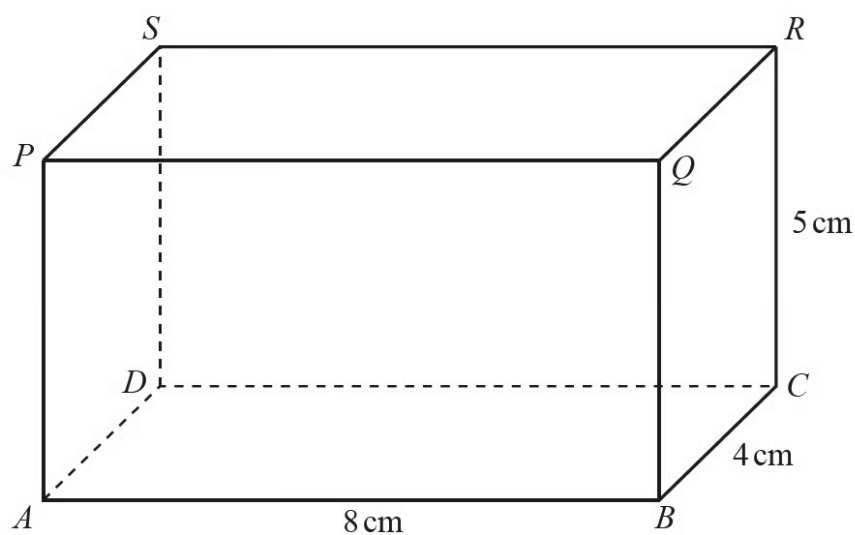
[1]

ii) Write down the mathematical name of this type of angle.

[1]

(2 marks)

10



NOT TO
SCALE

The diagram shows a cuboid.

$AB = 8$ cm, $BC = 4$ cm and $CR = 5$ cm.

Write down the number of planes of symmetry of this cuboid.

(1 mark)

Medium Questions

- 1 Write down the mathematical name for an angle which is less than 90° .

(1 mark)

2 (a)

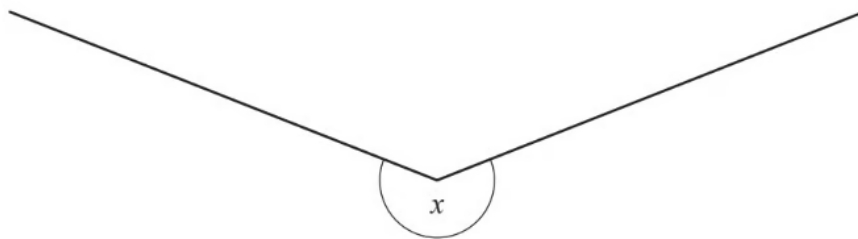


Measure the length of this line in millimetres.

..... mm

(1 mark)

(b)



- i) Measure the size of angle x .

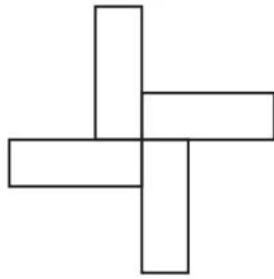
[1]

- ii) Write down the mathematical name of this type of angle.

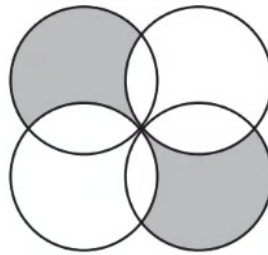
[1]

(2 marks)

3 Write down the order of rotational symmetry of each shape.



.....



.....

(2 marks)

4 Write down the mathematical name of a quadrilateral that has

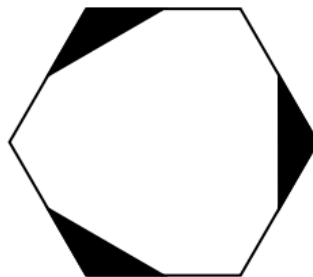
- rotational symmetry of order 1

and

- only one line of symmetry.

(1 mark)

5 (a)



Write down the order of rotational symmetry of the shape.

(1 mark)

(b) Draw all the lines of symmetry on the shape.

(1 mark)

6



Complete the description of this pattern.

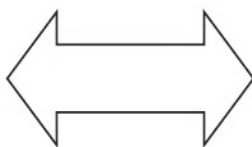
The pattern has lines of symmetry

and order of rotational symmetry

(2 marks)

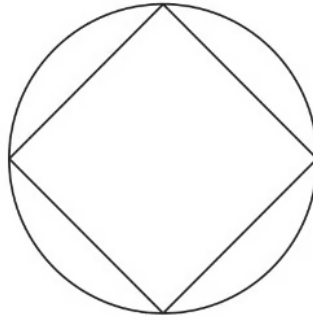
7 (a) On each shape, draw all the lines of symmetry.

i)



[1]

ii)



[2]
(3 marks)

(b) Write down the name of a quadrilateral that has

- rotational symmetry of order 2

and

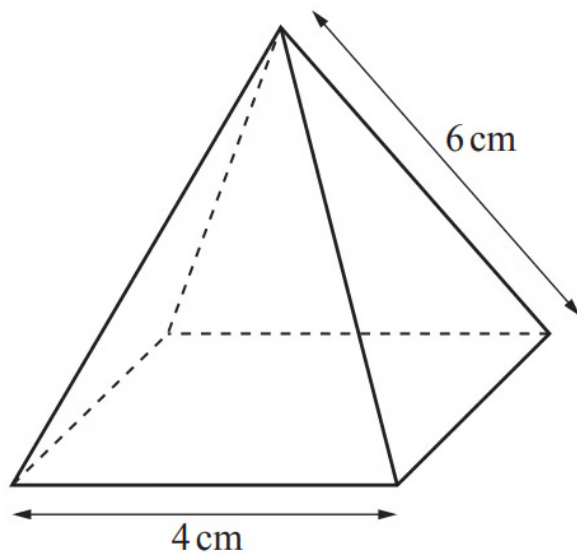
- exactly two lines of symmetry.

(1 mark)

8 An angle greater than 90° but less than 180° is called

(1 mark)

9



NOT TO
SCALE

The diagram shows a pyramid with a square base.
The triangular faces are congruent isosceles triangles.

Write down the number of planes of symmetry of this pyramid.

(1 mark)

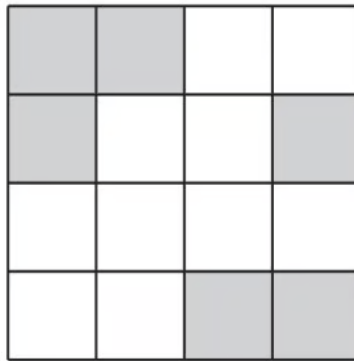
Hard Questions

1 State the **specific names** of **two** quadrilaterals which have:

- 1 line of symmetry
- **and** rotational symmetry order 1

(2 marks)

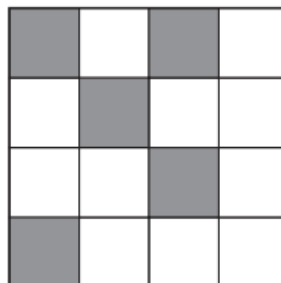
2



Shade two squares so that the diagram has rotational symmetry of order 2.

(1 mark)

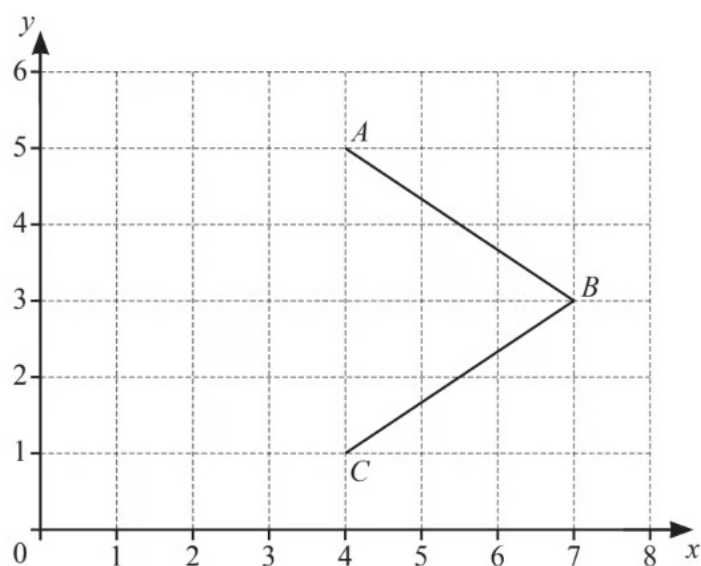
3



Shade two more small squares to give a pattern with exactly one line of symmetry.

(1 mark)

4 (a)



Write down the co-ordinates of point B .

(1 mark)

(b) The quadrilateral $ABCD$ has $x = 4$ as a line of symmetry.

On the grid, plot point D .

(1 mark)

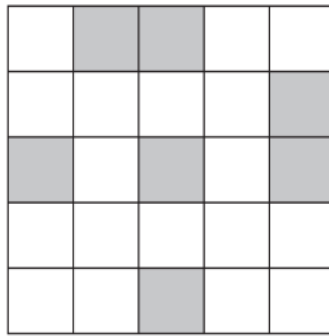
(c) Write down the mathematical name of quadrilateral $ABCD$.

(1 mark)

(d) Write down the order of rotational symmetry of quadrilateral $ABCD$.

(1 mark)

- 5 Shade two more squares so that this grid has rotational symmetry of order 4.



(1 mark)