

Symmetry

Difficulty: Hard

Question Paper 1

Level	IGCSE
Subject	Maths (0580/0980)
Exam Board	CIE
Topic	Geometry
Sub-Topic	Symmetry
Paper	Paper 2
Difficulty	Hard
Booklet	Question Paper 1

Time allowed: 26 minutes

Score: /20

Percentage: /100

Grade Boundaries:

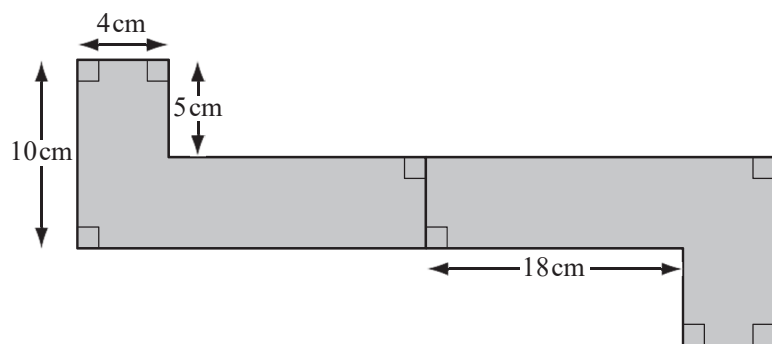
CIE IGCSE Maths (0580)

A*	A	B	C	D	E
>88%	76%	63%	51%	40%	30%

CIE IGCSE Maths (0980)

9	8	7	6	5	4	3
>94%	85%	77%	67%	57%	47%	35%

Question 1



NOT TO SCALE

The shaded shape has rotational symmetry of order 2.

Work out the shaded area.

[3]

Question 2

TRIGONOMETRY

From the above word, write down the letters which have

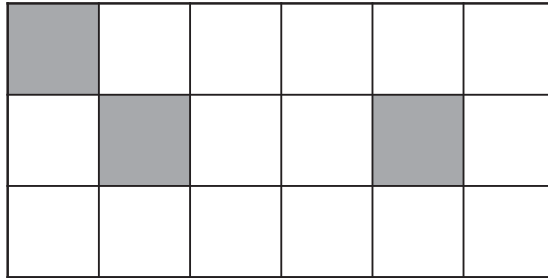
(a) exactly two lines of symmetry, [1]

(b) rotational symmetry of order 2. [1]

Question 3

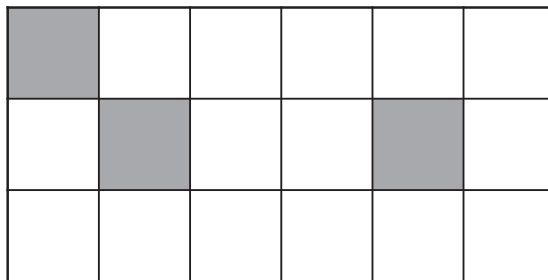
(a) Shade **one** square in each diagram so that there is

(i) one line of symmetry,



[1]

(ii) rotational symmetry of order 2.

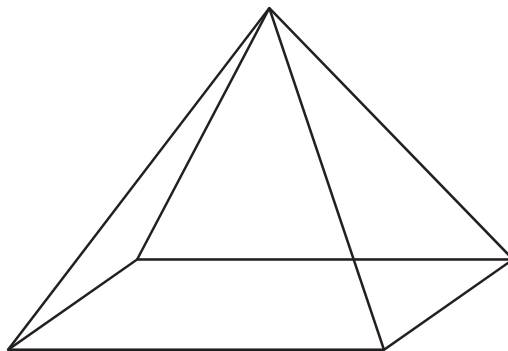


[1]

(b) The pyramid below has a rectangular base.

The vertex of the pyramid is vertically above the centre of the base.

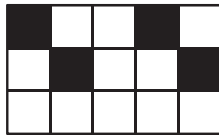
Write down the number of **planes** of symmetry for the pyramid.



[1]

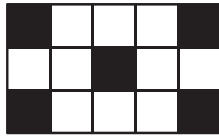
Question 4

(a) Write down the number of lines of symmetry for the diagram below.



[1]

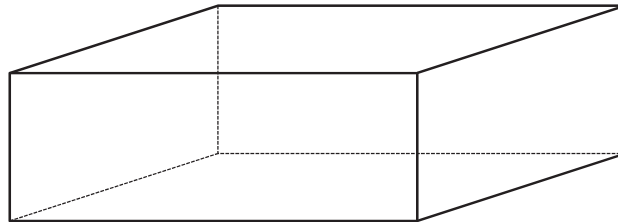
(b) Write down the order of rotational symmetry for the diagram below.



[1]

(c) The diagram shows a cuboid which has no square faces.

Draw one of the **planes** of symmetry of the cuboid on the diagram.



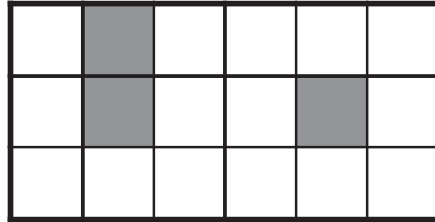
[1]

Question 5

(a) Shade one square in each diagram so that there is

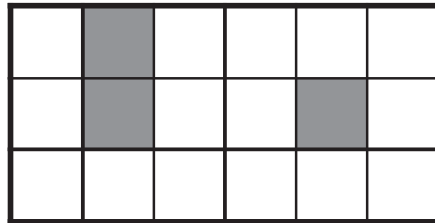
(i) one line of symmetry,

[1]



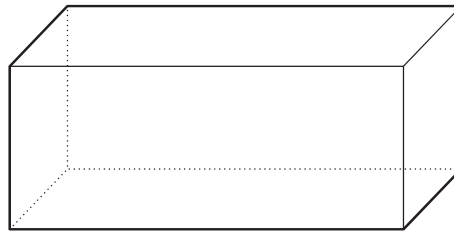
(ii) rotational symmetry of order 2.

[1]



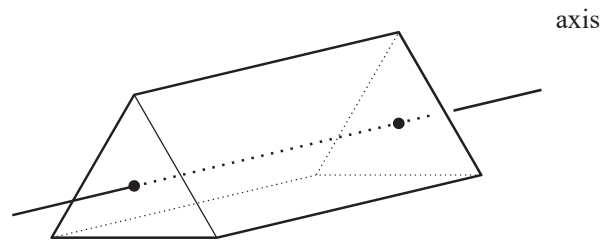
(b) On the diagram below, sketch one of the **planes** of symmetry of the cuboid.

[1]



(c) Write down the order of rotational symmetry of the equilateral triangular prism about the axis shown.

[1]



Question 6



(a) Write down the order of rotational symmetry of the diagram.

[1]

(b) Draw the lines of symmetry on the diagram.

[1]

Question 7

(a) Draw a quadrilateral which has rotational symmetry of order 2 and whose diagonals are equal in length.

[2]

(b) Write down the special name of this quadrilateral.

[1]