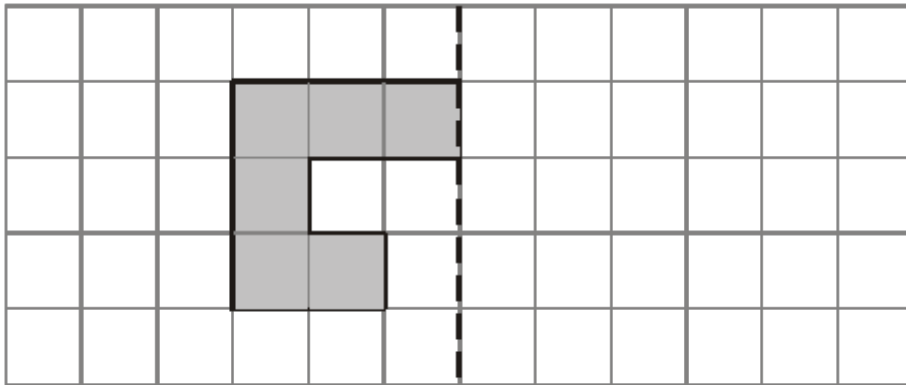


**Q1.**

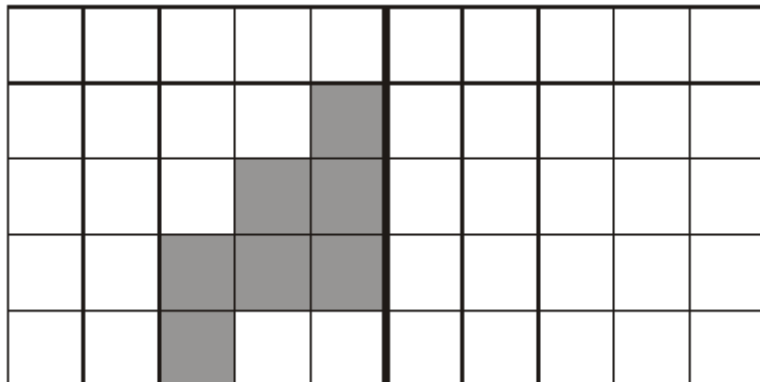


Mirror Line

Reflect the shaded shape in the mirror line.

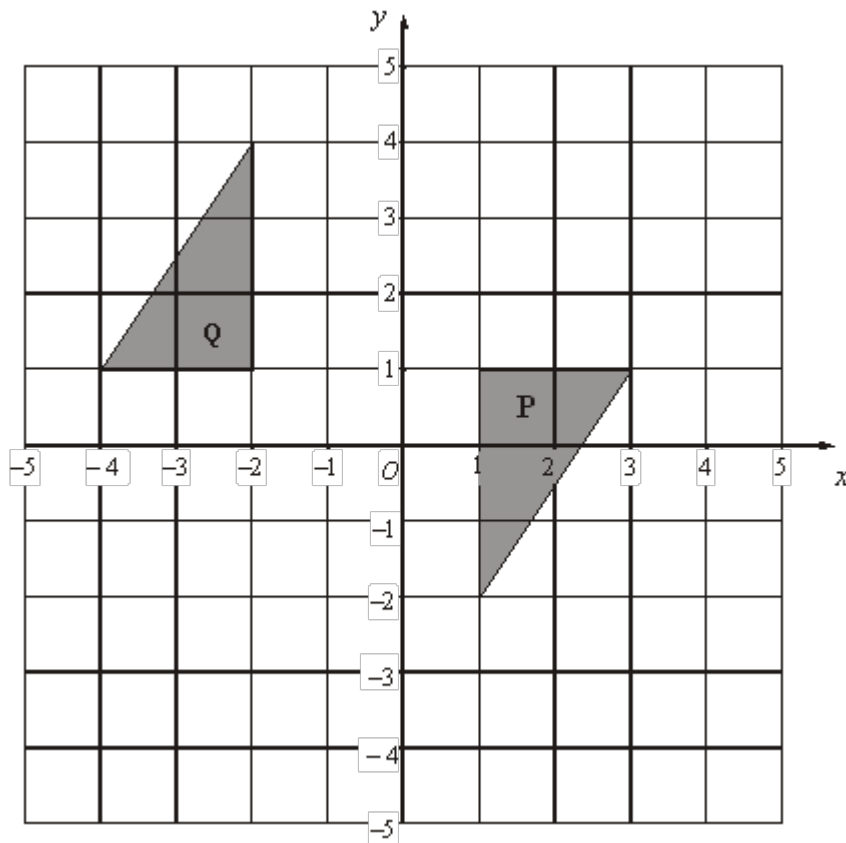
(Total 1 mark)

**Q2.** (a) Reflect the shaded shape in the mirror line.



(1)

(b) Describe the single transformation that moves shape **P** to shape **Q**.



.....

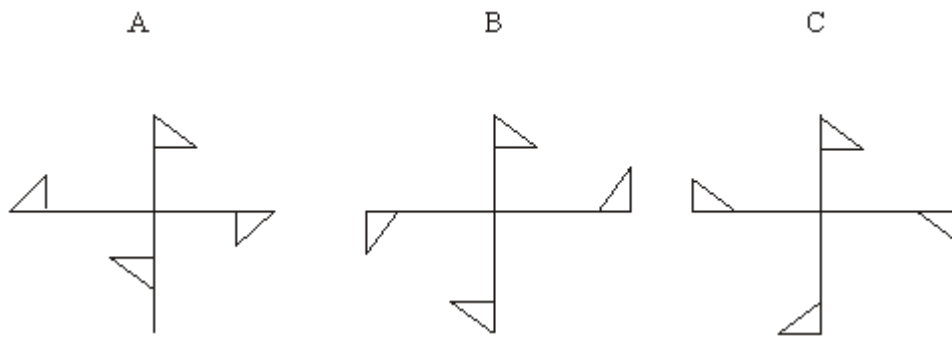
(2)  
(Total 3 marks)

**Q3.** (a) Draw all the lines of symmetry of this shape.



(1)

(b) Which of these shapes has rotational symmetry?

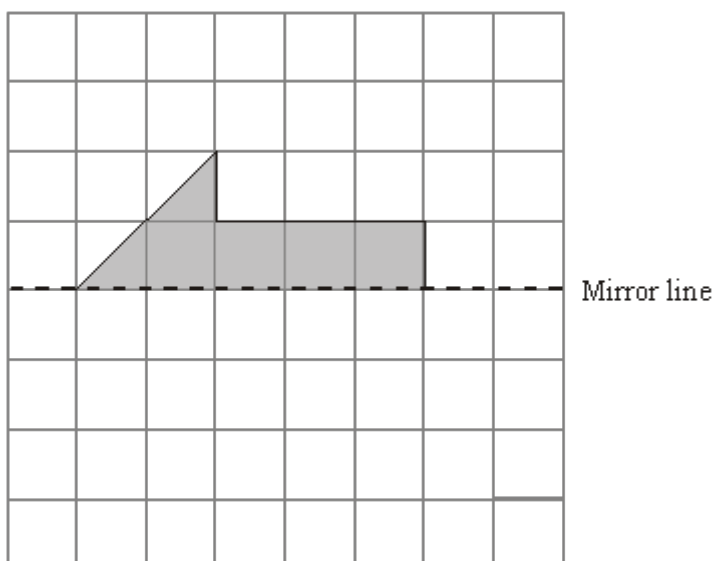


(1)

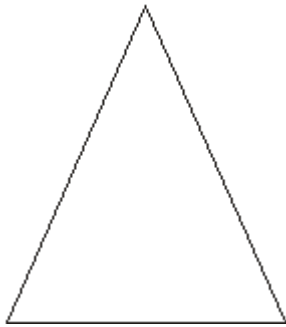
- (c) In the space below, draw a shape that has line symmetry and rotational symmetry order 3.

(2)  
(Total 4 marks)

Q4.



(a) Reflect the shaded shape in the mirror line.



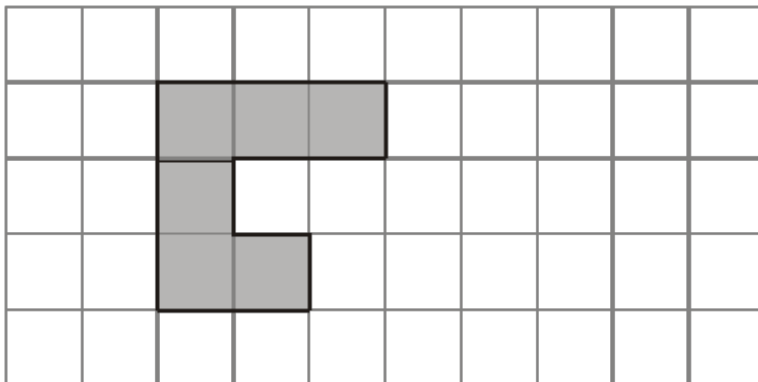
(1)

(b) Draw the line of symmetry on this triangle.

(1)

(Total 2 marks)

**Q5.**



The shaded shape is drawn on a grid of centimetre squares.

(a) Find the perimeter of the shaded shape.

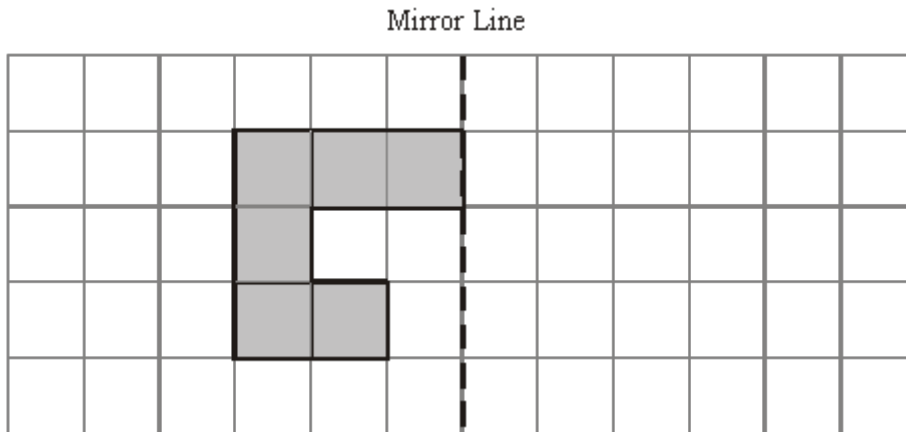
..... cm

(1)

(b) Find the area of the shaded shape.

..... cm<sup>2</sup>

(1)



(c) Reflect the shaded shape in the mirror line.

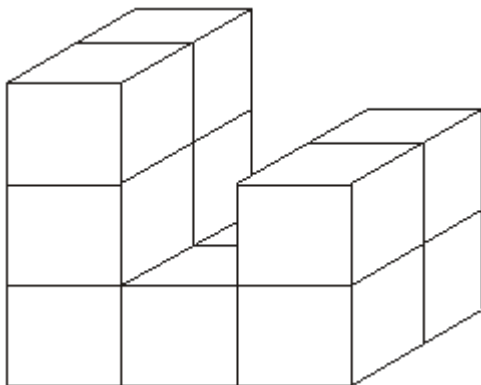


Diagram **NOT** accurately drawn

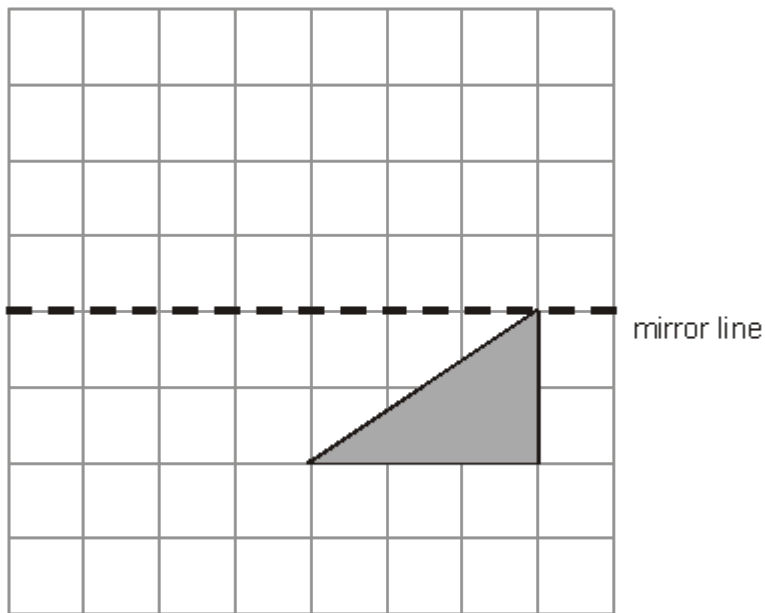
(1)

Here is a prism made of centimetre cubes.

(d) Find the volume of the prism.

..... cm<sup>3</sup>

(1)  
(Total 4 marks)

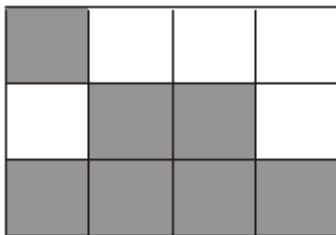


Q6.

(a) Reflect the shaded shape in the mirror line.

(1)

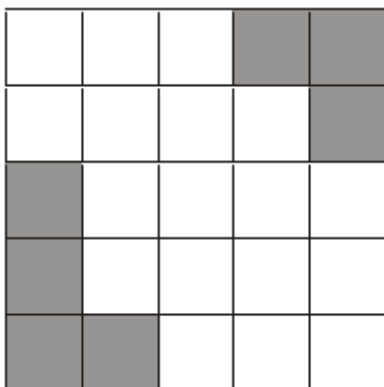
Here is a pattern made with squares.



(b) Shade one square to make a black and white pattern with only **one** line of symmetry.

(1)

Here is another pattern made with squares.



(c) Shade **three** more squares to make a pattern with rotational symmetry of order 2.

(1)

(Total 3 marks)

M1.

Answer	Mark	Additional Guidance
Reflection	1	<b>B1</b> cao
<b>Total for Question: 1 marks</b>		

M2.

	Working	Answer	Mark	Additional Guidance
(a)		Correct reflection	1	<b>B1</b> cao
(b)		Rotation $180^\circ$ centre $(-0.5, 1)$	2	<b>B2</b> for all 3 attributes <b>B1</b> for any two of the three attributes
<b>Total for Question: 3 marks</b>				

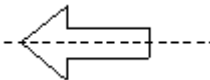

M3.

	Working	Answer	Mark	Additional Guidance
(a)		Vertical and horizontal lines of symmetry only	1	<b>B1</b> cao (– 1 for extra lines drawn)



(b)		B	1	<b>B1</b> cao
(c)		Eg. Equilateral triangle	2	<b>B2</b> for any shape satisfying both criteria [ <b>B1</b> for a shape with rotational symmetry of order 3 with no line symmetry]
<b>Total for Question: 4 marks</b>				

**M4.**

	Answer	Mark	Additional Guidance
(a)		1	<b>B1</b> for completed shape cao
(b)		1	<b>B1</b> for line of symmetry drawn
<b>Total for Question: 2 marks</b>			

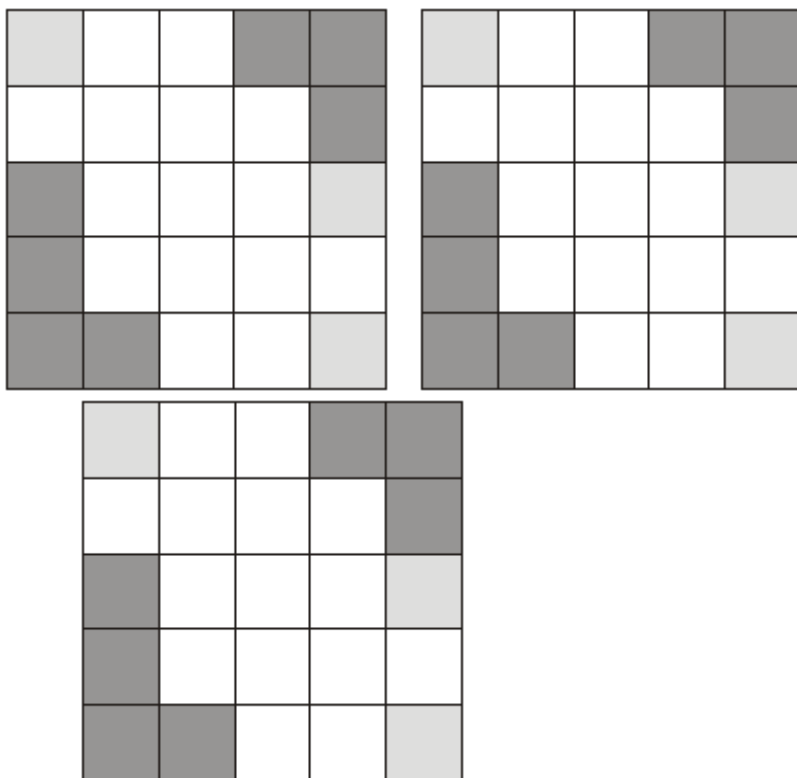
**M5.**

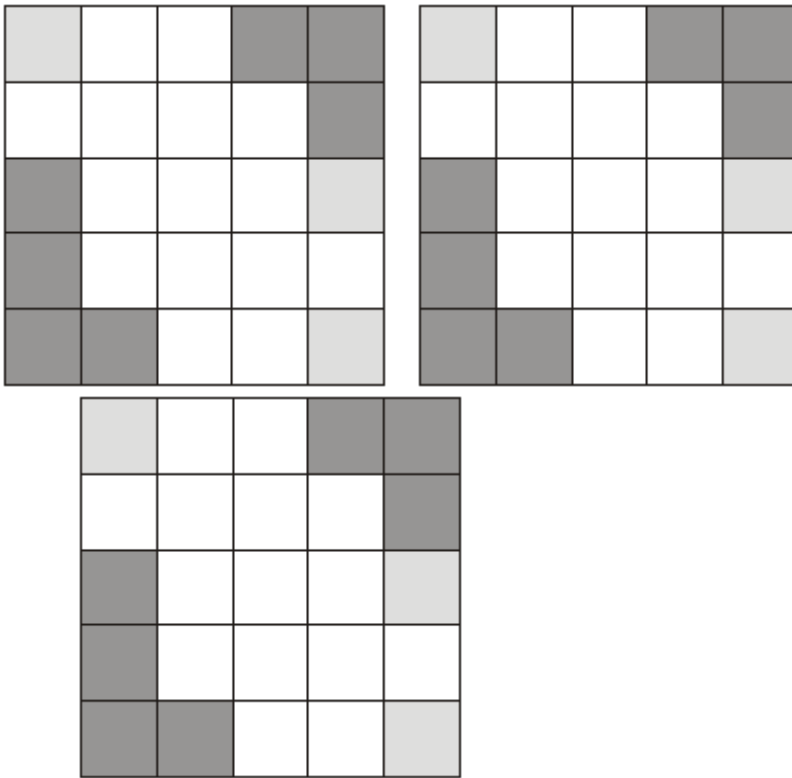
	Answer	Mark	Additional Guidance
(a)	14	1	<b>B1</b> cao
(b)	6	1	<b>B1</b> cao
(c)	(Reflection)	1	<b>B1</b> cao

(d)	12	1	B1 cao
<b>Total for Question: 4 marks</b>			

**M6.**

	Working	Answer	Mark	Additional Guidance
(a)		Correct reflection	1	B1 cao
(b)		Correct square	1	B1 cao
(c)	See pattern at end	Correct square	1	B1 cao
<b>Total for Question: 3 marks</b>				





- E1.** This was a well answered question with most candidates scoring full marks.
- E4.** Only a few candidates failed to reflect the shaded shape correctly in part (a) and most drew the correct line of symmetry in part (b). Occasionally this line was drawn very carelessly and the mark could not be awarded.
- E5.** There were many correct responses but a significant number of candidates confused perimeter with area and vice versa, scoring no marks. Around two thirds of the candidates got part (a) correct and/or part (b) correct.
- In part (c) nearly all candidates got this correct with a few adding an extra square to give 4 squares in the top row.
- In part (d) just under 60% got the correct volume. By far the most common error was to attempt to find the volume by multiplying a height by a width by a length, reaching 18 ( $3 \times 3 \times 2$ ) or even 8 ( $2 \times 2 \times 2$ ).