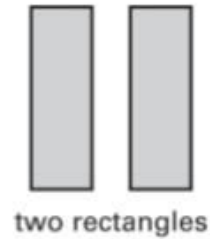
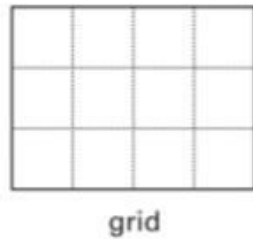


Symmetry-Questions

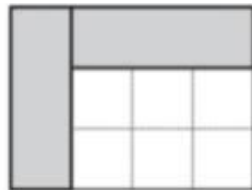
Key Stage 3: 2003 Paper 1 Level 3-5

1.

13. I have a square grid and two rectangles.



I make a pattern with the grid and the two rectangles:



The pattern has **no** lines of symmetry.

(a) Put both rectangles on the grid to make a pattern with **two** lines of symmetry.

You must **shade** the rectangles.

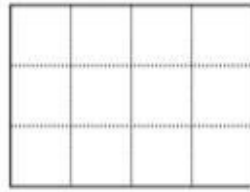


1 mark

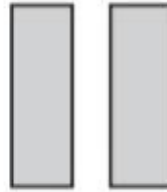
Key Stage 3: 2003 Paper 1 Level 4-6

2.

8. I have a square grid and two rectangles.

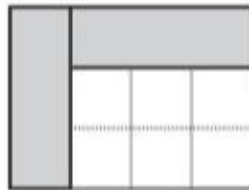


grid



two rectangles

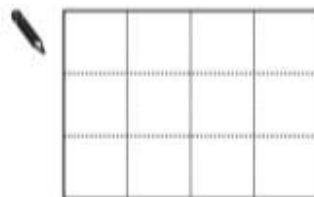
I make a pattern with the grid and the two rectangles:



The pattern has **no** lines of symmetry.

- (a) Put both rectangles on the grid to make a pattern with **two** lines of symmetry.

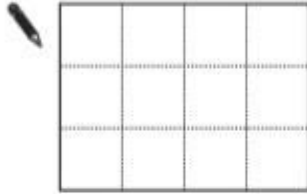
You must **shade** the rectangles.



1 mark

(b) Put both rectangles on the grid to make a pattern with **only one** line of symmetry.

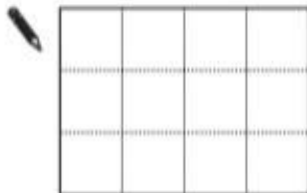
You must **shade** the rectangles.



1 mark

(c) Put both rectangles on the grid to make a pattern with **rotation** symmetry of **order 2**

You must **shade** the rectangles.



1 mark

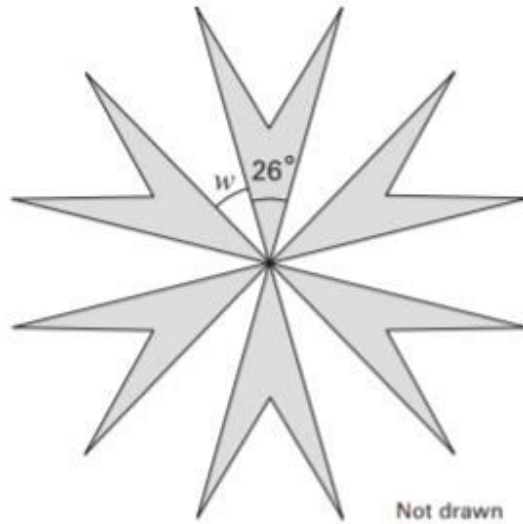
Key Stage 3: Paper 2 Level 4-6

3.

18. This pattern has rotation symmetry of order 6

What is the size of angle w ?

Show your working.



.....
°

.....
2 marks

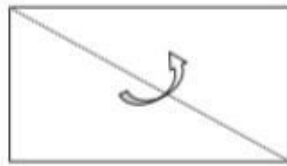
Key Stage 3: 2004 Paper 1 Level 3-5

4.

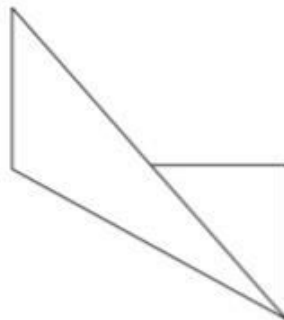
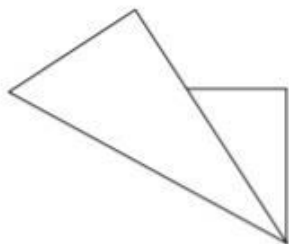
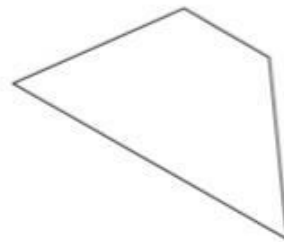
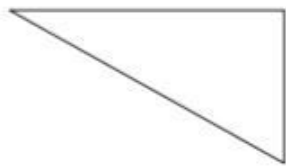
8. When you fold a **square** along a diagonal, you see a triangle.



- (a) What do you see when you fold a **rectangle** along a diagonal?



Ring the correct answer below.





1 mark

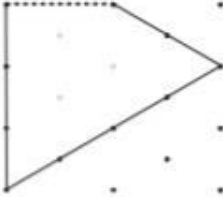

(b) Three different shapes are folded along a line of symmetry.

For each shape, the **dashed line** is the **fold line**.



For each shape, draw what the shape looked like **before** it was folded.



1 mark



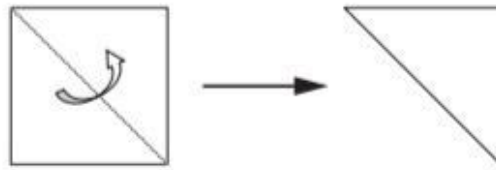
1 mark



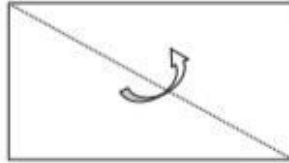
1 mark

Isometric grid

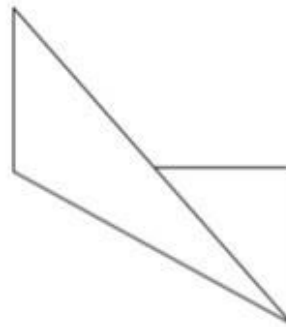
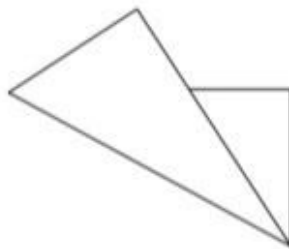
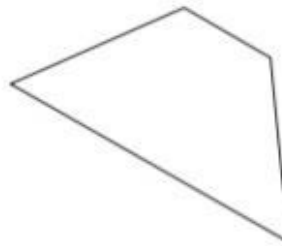
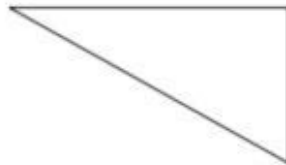
3. When you fold a **square** along a diagonal, you see a triangle.



(a) What do you see when you fold a **rectangle** along a diagonal?



Ring the correct answer below.



1 mark

(b) Two different shapes are folded along a line of symmetry.

For each shape, the **dashed line** is the **fold line**.

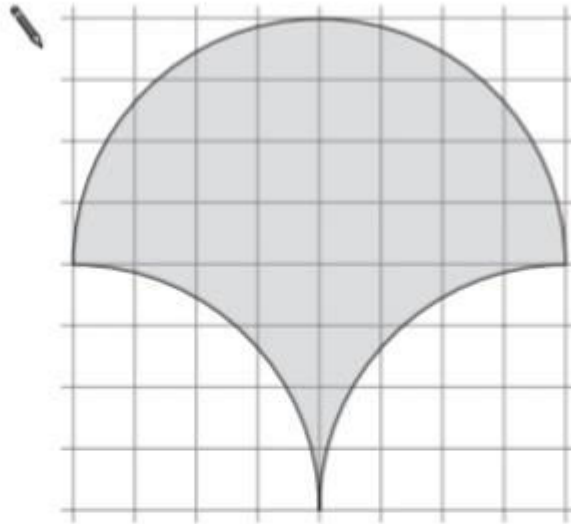
For each shape, draw what the shape looked like **before** it was folded.

The image shows two identical isometric grids. Each grid is 10 units wide and 10 units high. In the first grid, a shape is drawn with a vertical dashed line on the left side, indicating a fold line. The shape is a right-angled triangle with its right angle at the top-left corner. The top edge is 2 units long, the left edge is 3 units long, and the hypotenuse connects the top-right corner to the bottom-left corner. A pencil icon is positioned to the left of the grid. To the right of the grid, the text '1 mark' is written. In the second grid, the same shape is drawn, but the dashed line is on the right side, indicating a fold line. The top edge is 2 units long, the right edge is 3 units long, and the hypotenuse connects the top-left corner to the bottom-right corner. A pencil icon is positioned to the left of the grid. To the right of the grid, the text '1 mark' is written. The label 'Isometric grid' is located at the bottom right of the page.

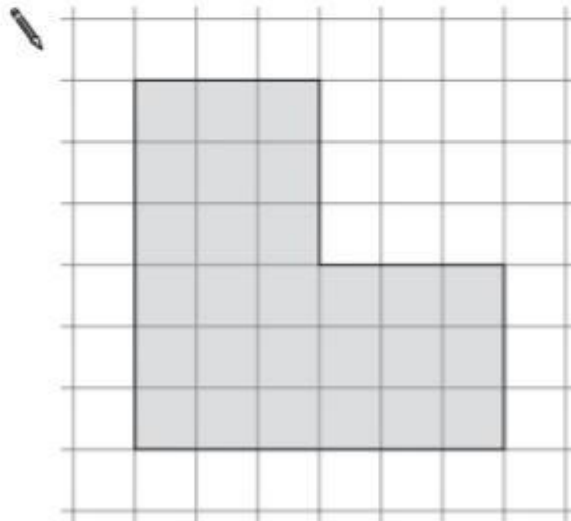
Key Stage 3: 2006 Paper 1 Level 3-5

6.

1. The shapes below are drawn on square grids.
Each shape has **one line of symmetry**.
Draw the line of symmetry on each shape.



1 mark

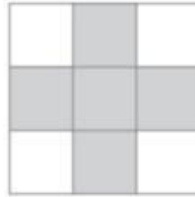


1 mark

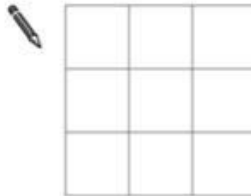
Key Stage 3: 2008 Paper 1 Level 3-5

7.

13. On the square grid below, some squares are shaded to make a pattern with exactly **4 lines** of symmetry.

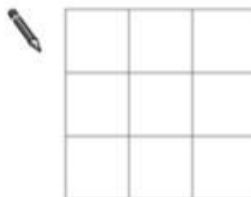


- (a) On the square grid below, shade some squares to make a pattern with exactly **2 lines** of symmetry.



1 mark

- (b) On the square grid below, shade some squares to make a pattern with exactly **1 line** of symmetry.

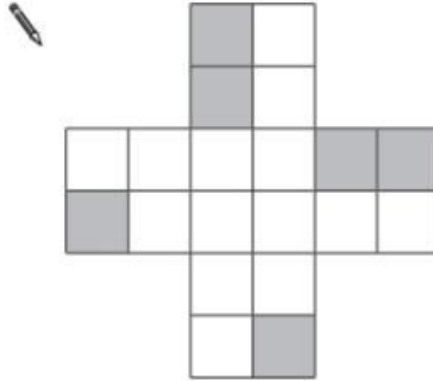


1 mark

Key Stage 3: 2008 Paper 2 Level 3-5

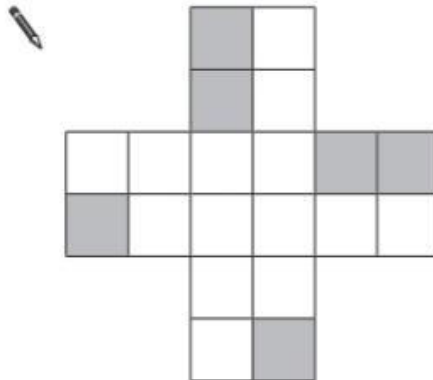
8.

23. (a) Shade **two** more squares on the shape below so that it has **rotation symmetry** of order 4



1 mark

- (b) Now shade **four** more squares on the shape below so that it has **rotation symmetry** of order 2

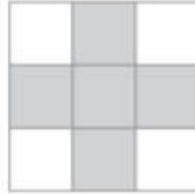


1 mark

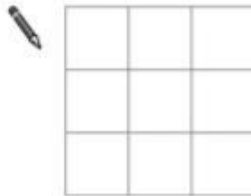
Key Stage 3: 2008 Paper 1 Level 4-6

9.

6. On the square grid below, some squares are shaded to make a pattern with exactly **4 lines** of symmetry.

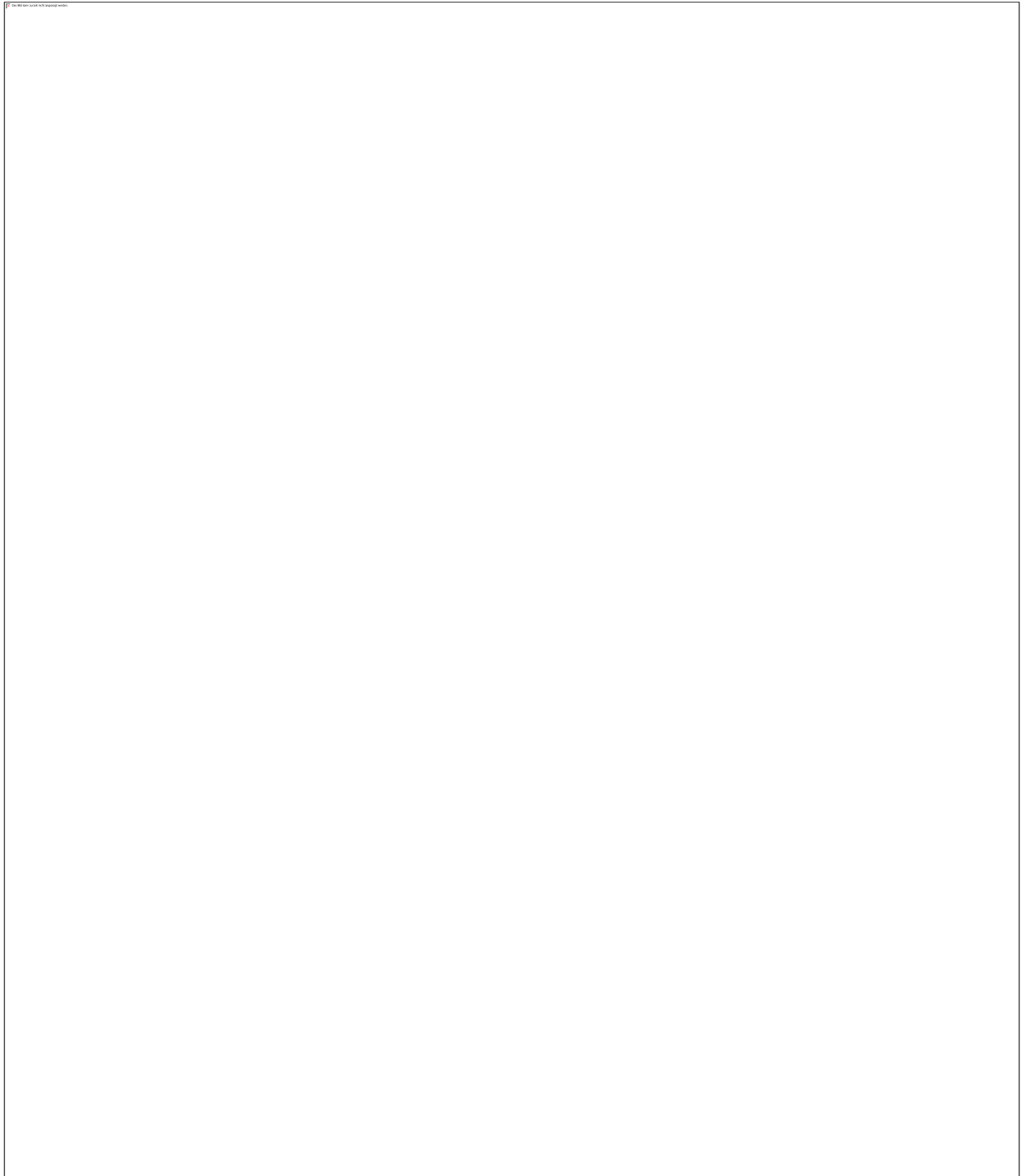


- (a) On the square grid below, shade some squares to make a pattern with exactly **2 lines** of symmetry.



1 mark

- (b) On the square grid below, shade some squares to make a pattern



Key Stage 3: 2009 Paper 1 Level 3-5

11.

