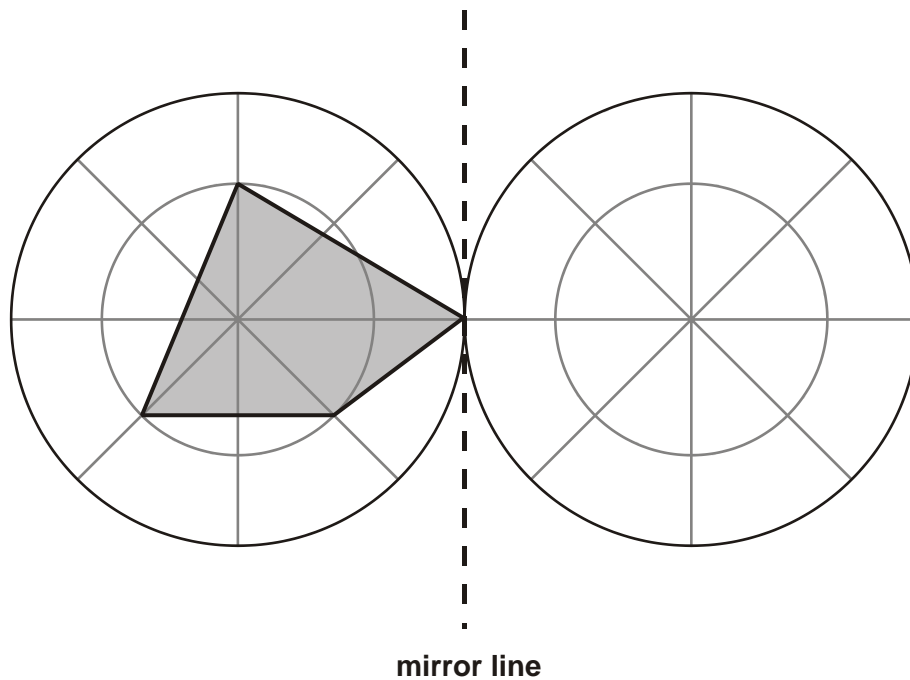


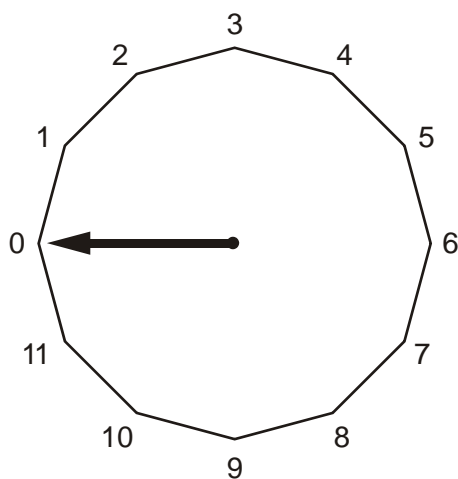
1. Draw the reflection of the shaded shape in the mirror line.

Use a ruler.



1 mark

2. This regular 12-sided shape has a number at each vertex.



Ben turns the pointer from zero, clockwise through 150°

Which number will the pointer now be at?



1 mark

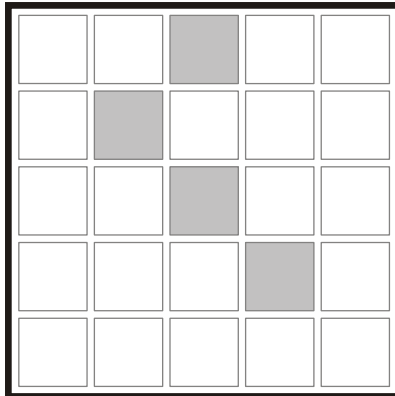
Nisha turns the pointer clockwise from number 2 to number 11

Through how many degrees does the pointer turn?



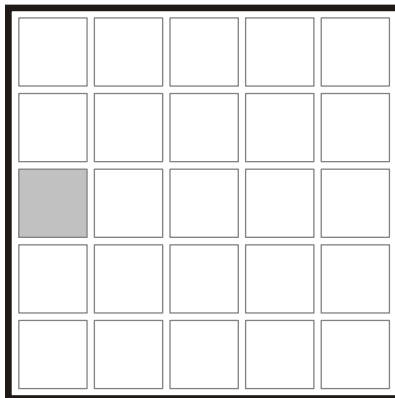
1 mark

3. Ben makes this design on a grid.



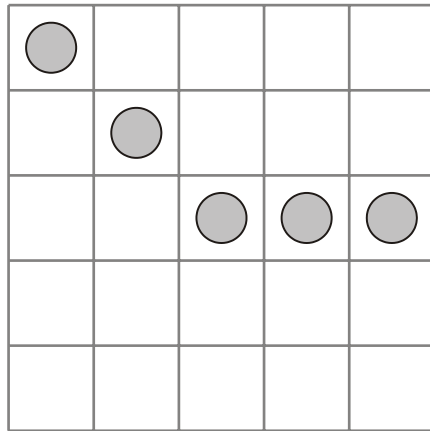
He rotates the grid to a new position.

Shade in the missing parts of the design.



1 mark

4. Draw **two** more circles on this grid to make a design that has a line of symmetry.



1 mark

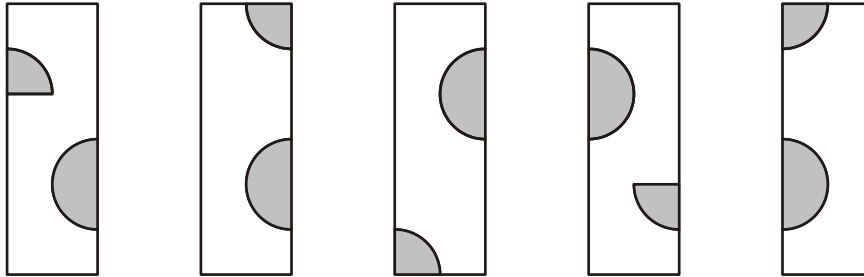
5. Here is a tile.



The tile is turned.

One of the diagrams below shows the tile after it has been turned.

Tick (✓) the correct diagram.

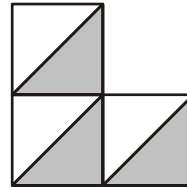
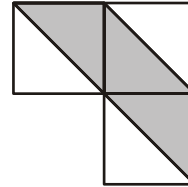
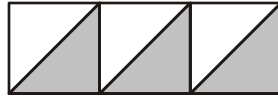
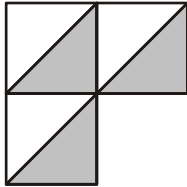


1 mark

6. Here are five patterns.

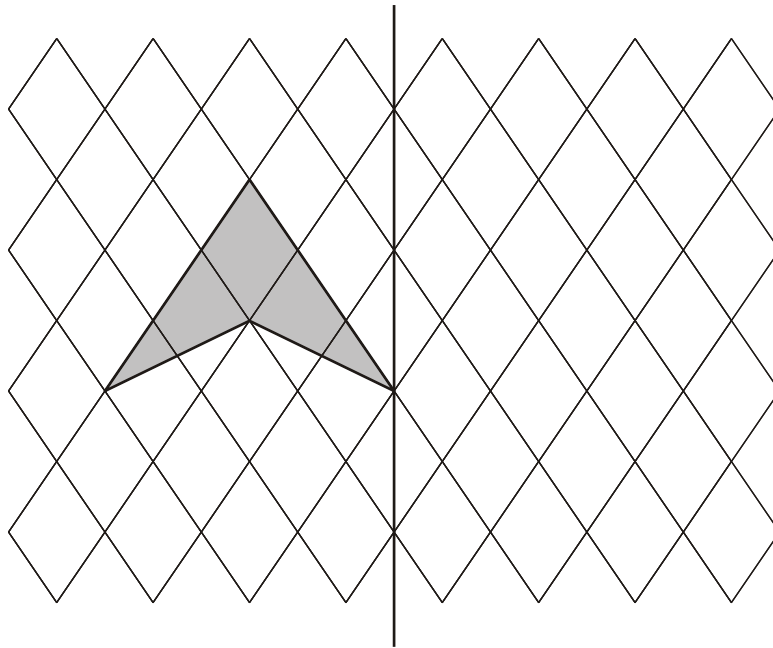
For each pattern put a tick (✓) if it has a line of symmetry.

Put a cross (✗) if it does not.



2 marks

7. Draw the reflection of the shaded shape in the mirror line.
Use a ruler.



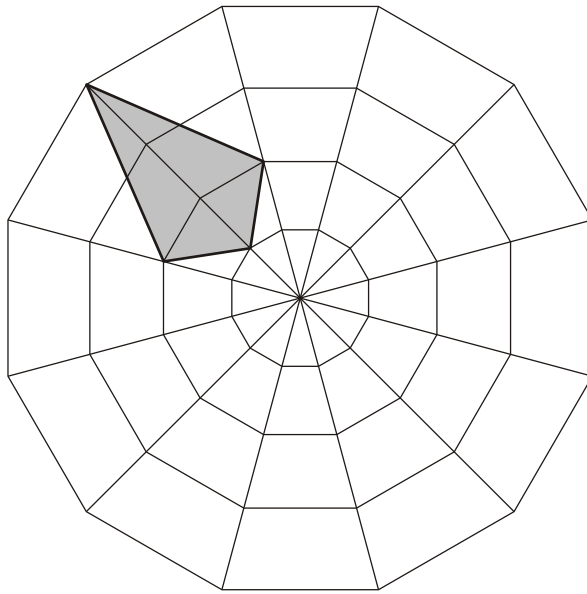
mirror line

1 mark

8. Here is a shaded shape on a grid.

Jamie rotates the shape 90° **clockwise** about the centre of the grid.

Draw the shaded shape in its new position.

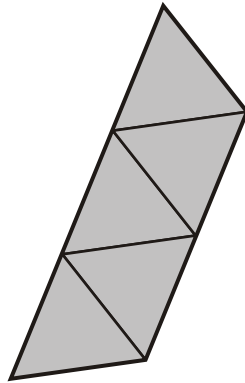
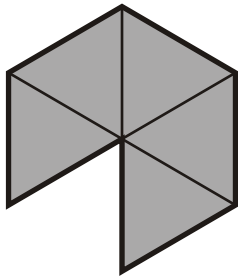


2 marks

9. These two shapes are made from equilateral triangles.

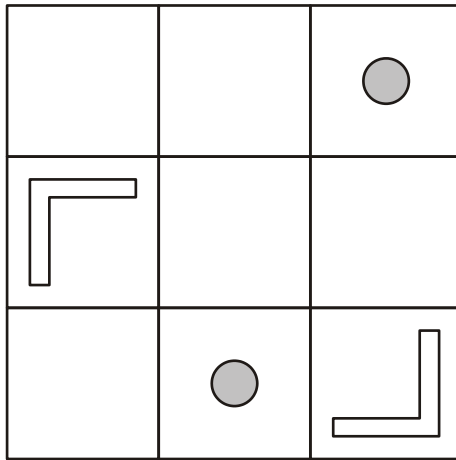
Draw one line of symmetry on each shape.

Use a ruler.



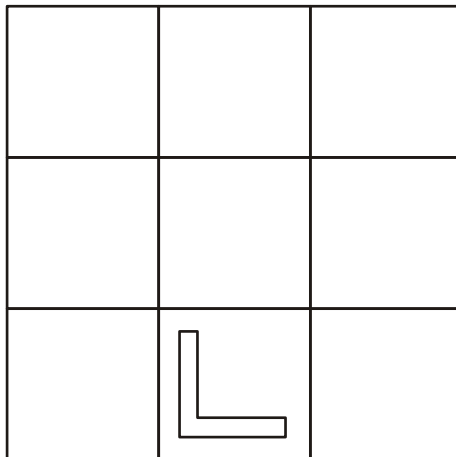
1 mark

10. There are four shapes on this diagram.



The diagram is turned to the new position below.

Draw the three missing shapes.



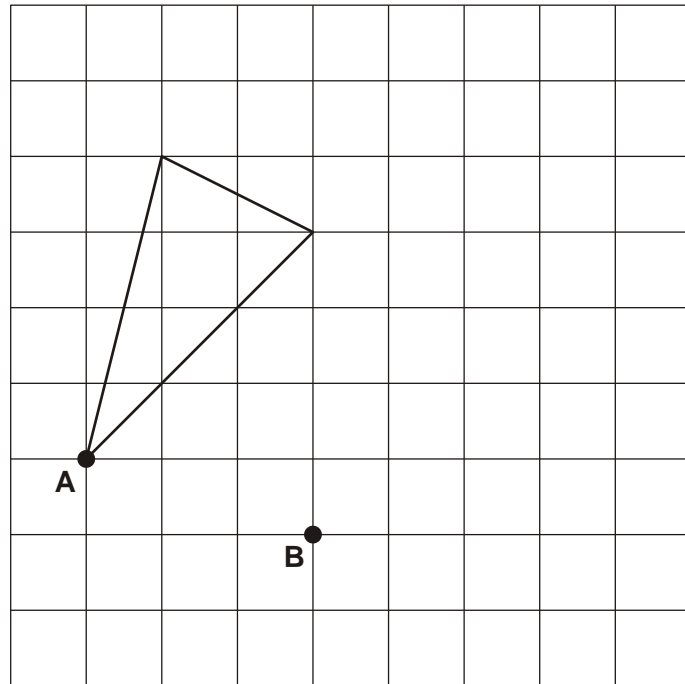
2 marks

11. Here is a triangle on a square grid.

The triangle is translated so that point **A** moves to point **B**.

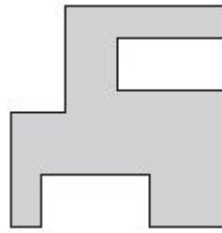
Draw the triangle in its new position.

Use a ruler.

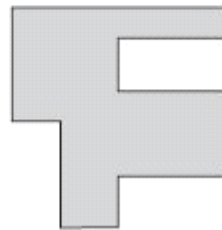
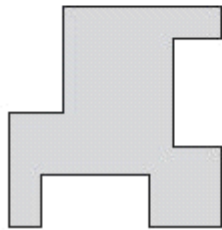
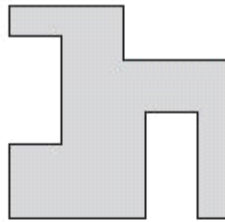
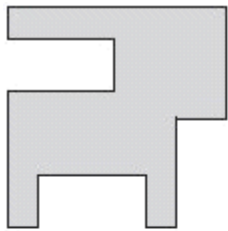


1 mark

12. Here is a shape.



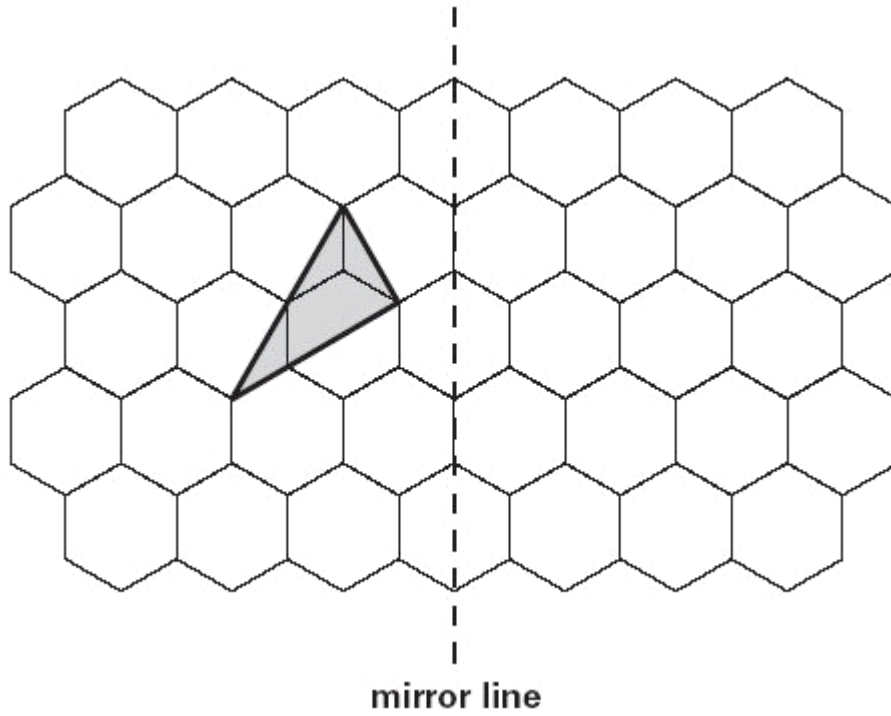
Put a tick (✓) on the shape below which is the same as the one above.



1 mark

13. This grid is made of hexagons.

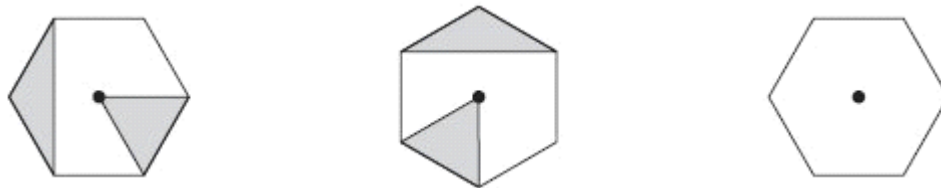
Draw the reflection of the shaded shape on the grid.



1 mark

14. This pattern is made by turning a shape clockwise through 90° each time.

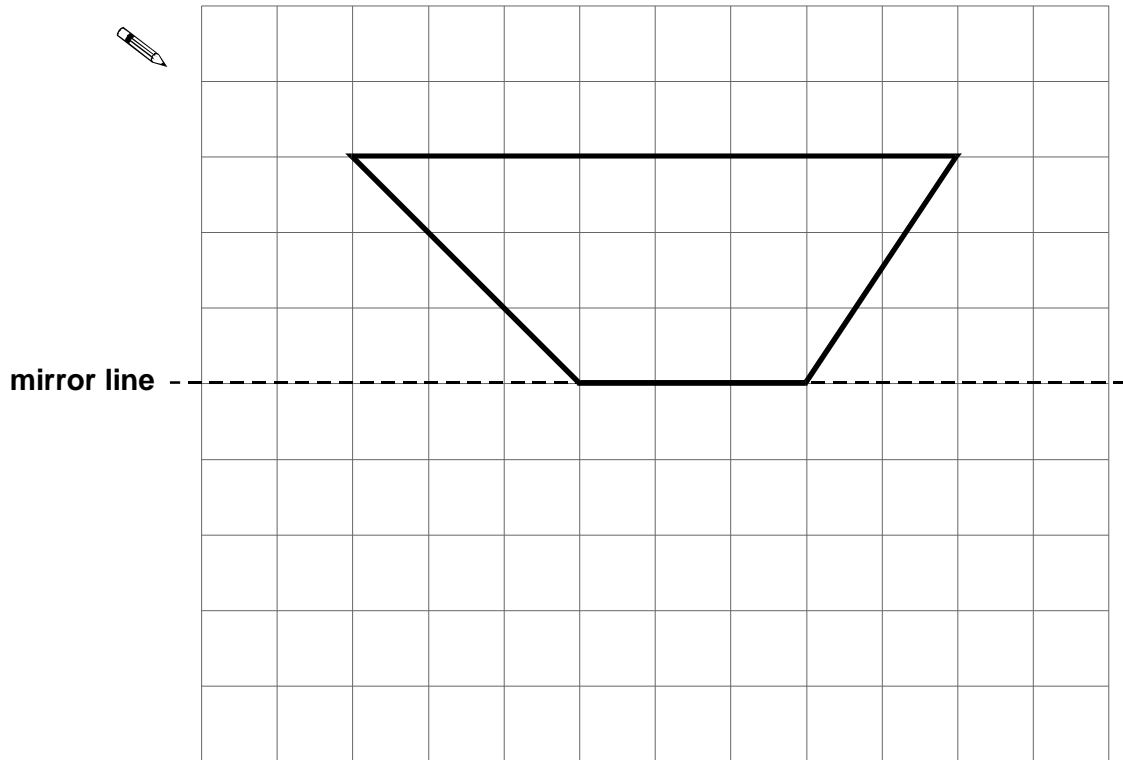
Draw the two missing triangles on the last shape.



1 mark

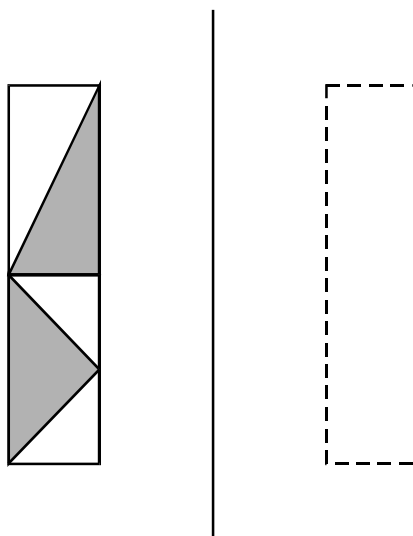
15. Complete the diagram below to make a shape that is symmetrical about the mirror line.

Use a ruler.



1 mark


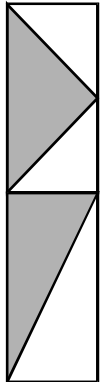
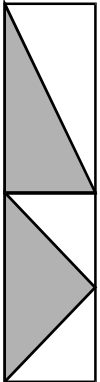
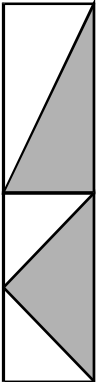
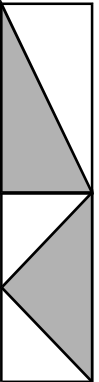
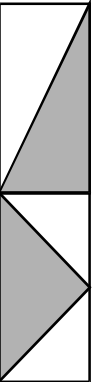
16. Here is a design and a mirror line.



mirror line

Which **one** of the designs below is the reflection of the design in the mirror line?

Tick (✓) the correct design.

					
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

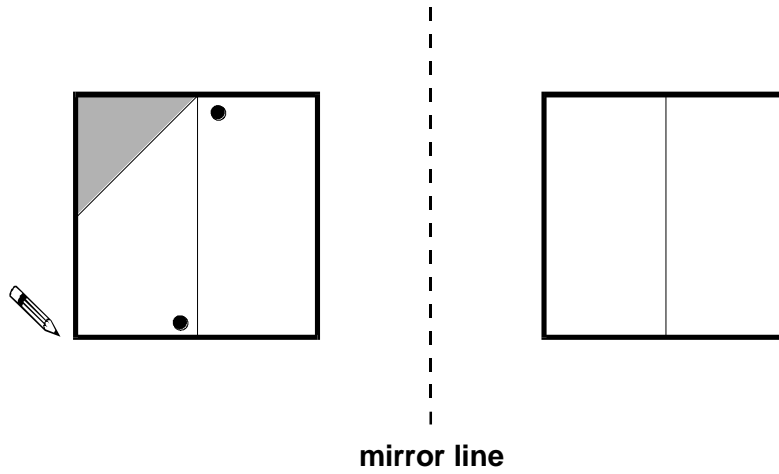
1 mark

17. Here is a square with a design on it.

The square is reflected in the mirror line.

Draw the missing triangle and dots on the reflected square.

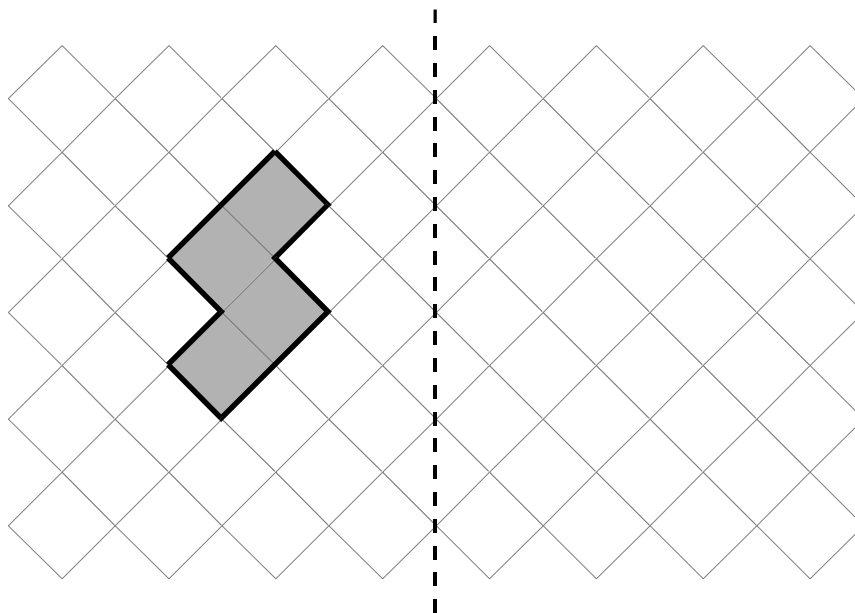
You may use a mirror or tracing paper.



1 mark

18. Draw the **reflection** of the shaded shape in the mirror line.

You may use a mirror or tracing paper.

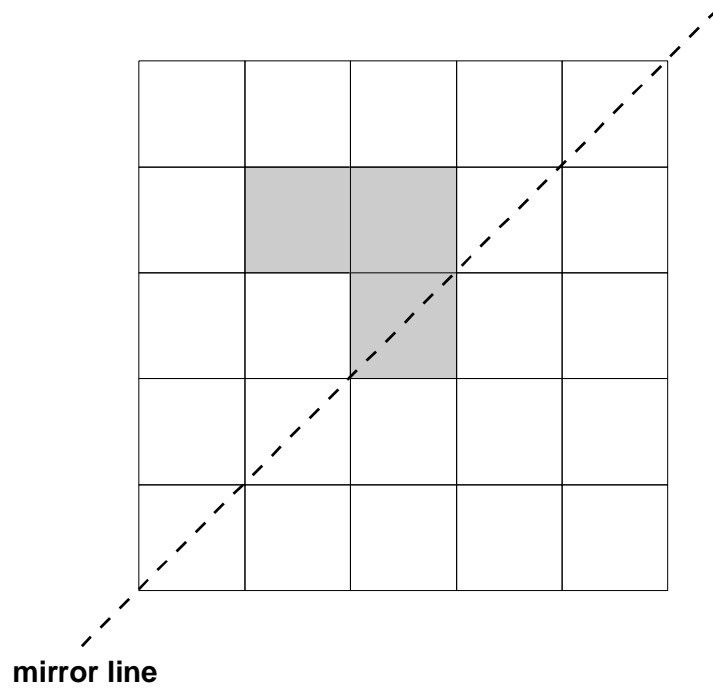


mirror line

1 mark

19. Shade in **two more squares** to make this design symmetrical about the mirror line.

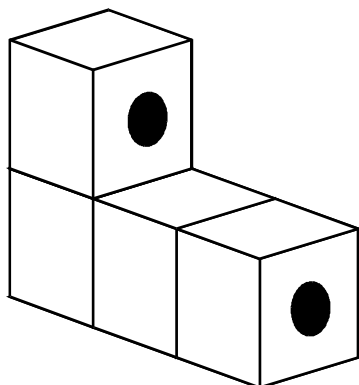
You may use a mirror or tracing paper.



1 mark

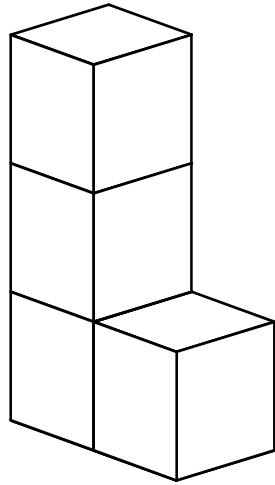
20. Tom makes this shape from four cubes stuck together.

Two circles are drawn on the shape.



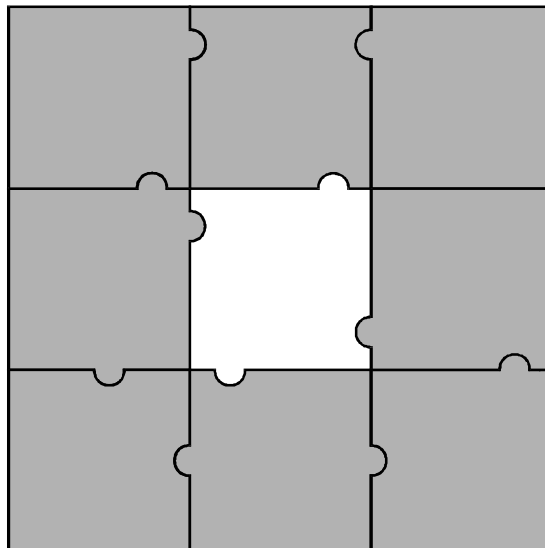
Tom moves the shape.

Draw the **circles** on the shape in its new position.

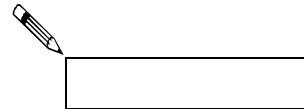
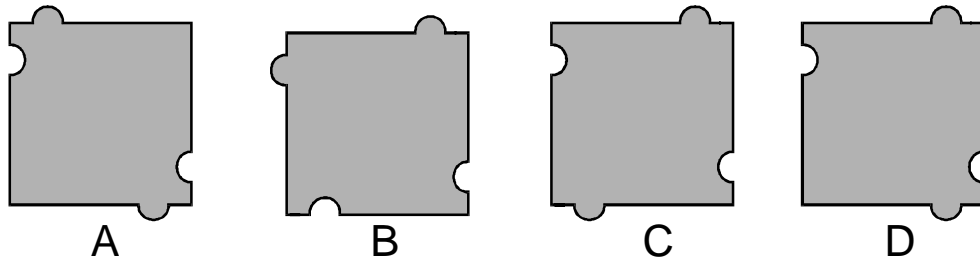


1 mark

21. Here is a jigsaw with one piece **missing**.

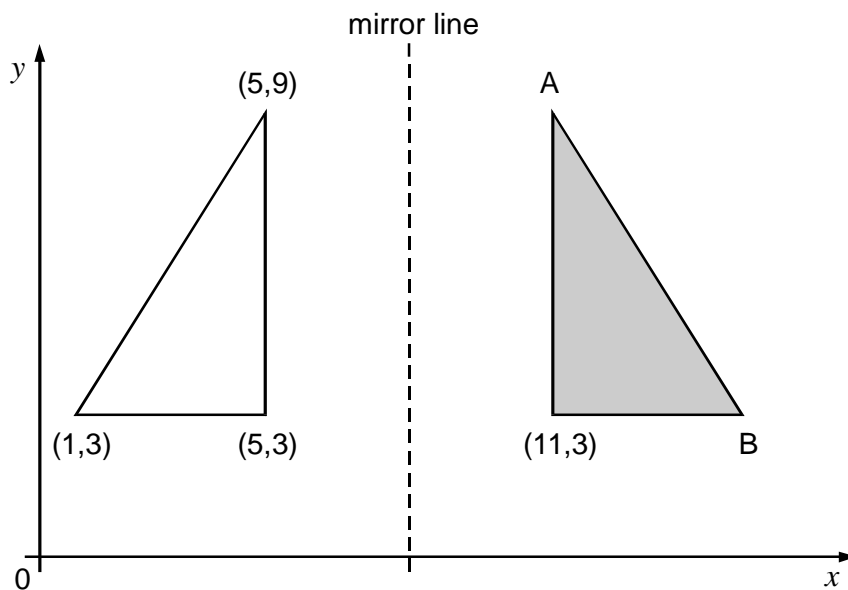


Which **one** of the pieces below fits the hole in the middle?




1 mark

22. The shaded triangle is a reflection of the white triangle in the mirror line.



Write the **co-ordinates** of point **A** and point **B**.

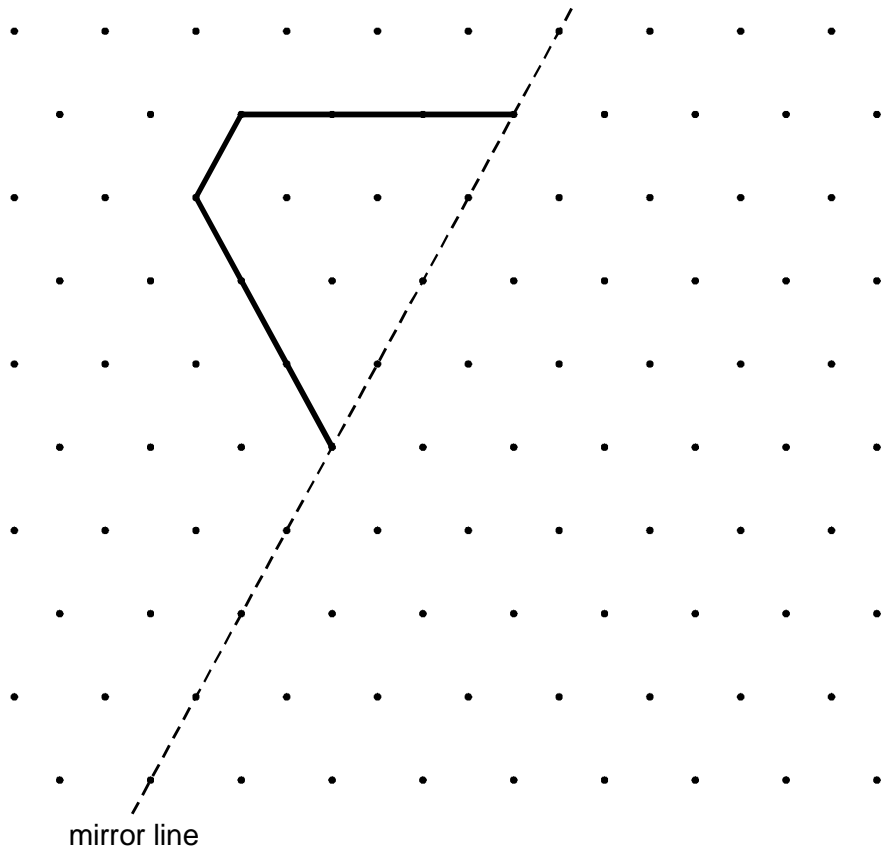
 A is B is

2 marks

23. Draw the **reflection** of the shape in the **mirror line**.

Use a ruler.

You may use a mirror or tracing paper.



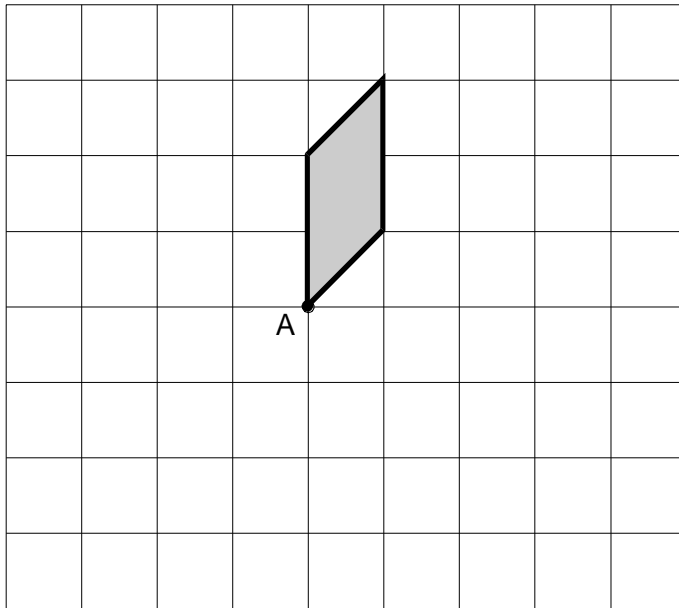
1 mark

24. Here is a shaded shape on a grid.

The shape is **rotated 90° clockwise** about point **A**.

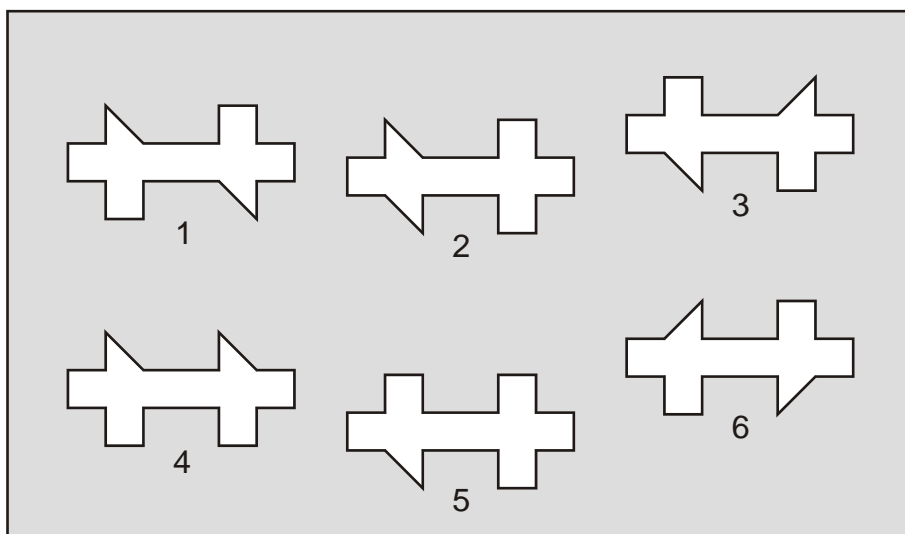
Draw the shape in its **new position** on the grid.

You may use tracing paper.



2 marks

25. This board has six holes cut in it.

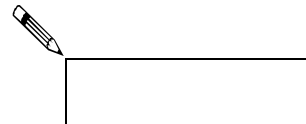


Here is a shape cut out of card.



Which hole will the shape fit exactly into?

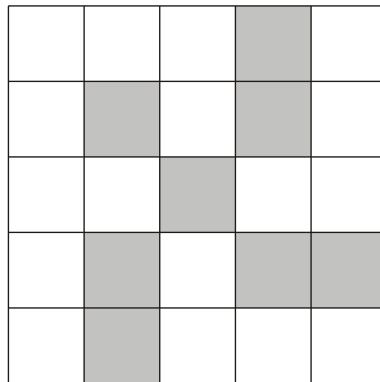
You may use tracing paper.



1 mark

26. Shade in **one more** square so that this design has **rotational** symmetry of **order 4**.

You may use tracing paper

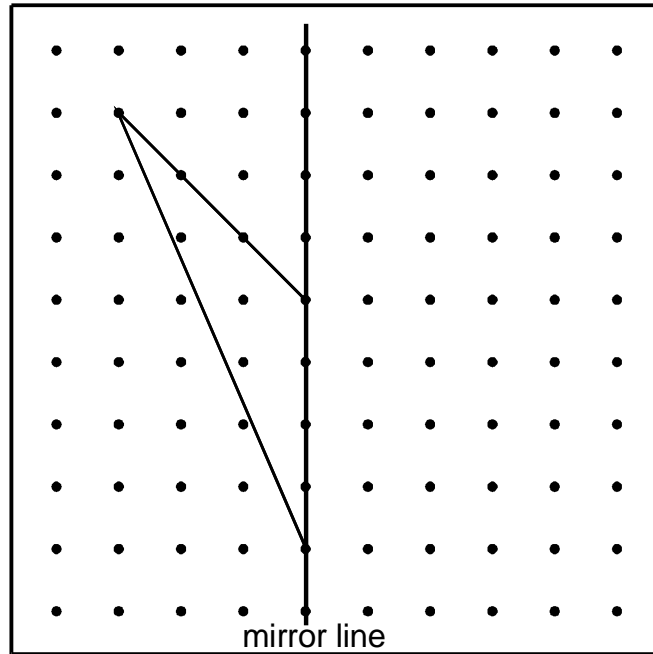


1 mark

27. Draw the **reflection** of this triangle in the mirror line.

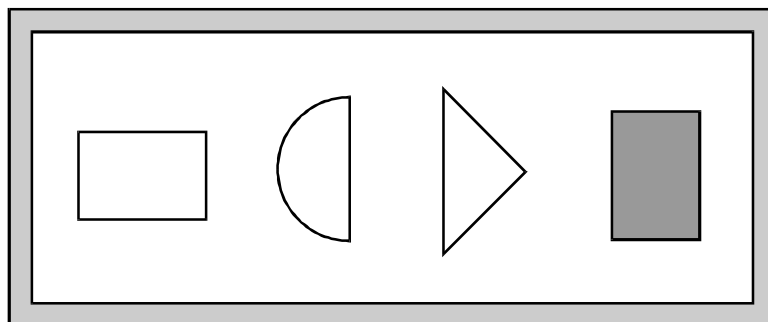
You may use a ruler.

You may use tracing paper.



1 mark

28. Here is a pattern on a window.

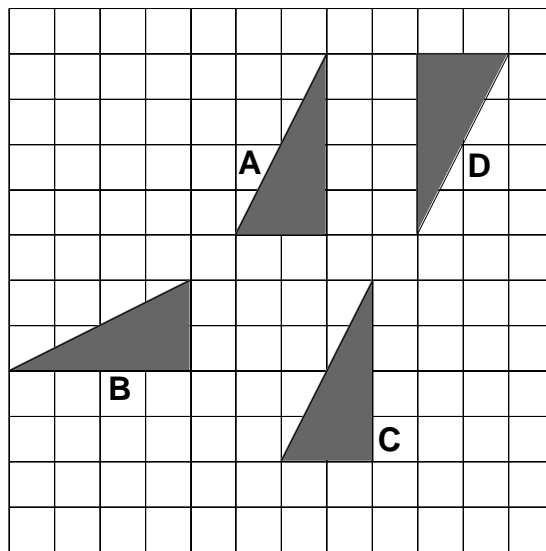


Draw how the pattern would look from the **other side** of the window.



2 marks

29.



Write the correct **letter** in this sentence.



Shape is a **reflection** of shape A.

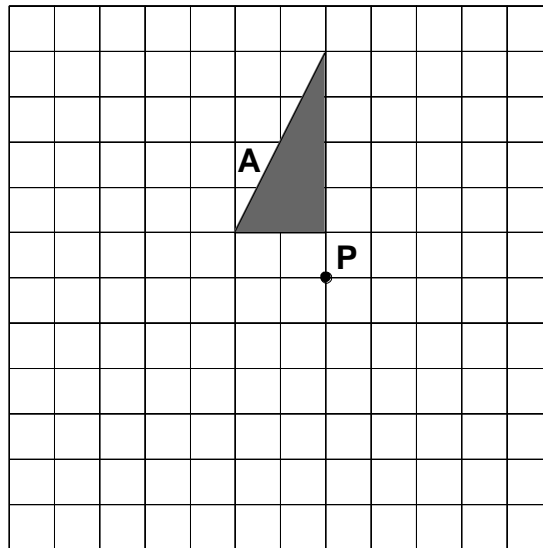
1 mark

Shape A is **rotated 180°** about the **point P**.

Draw **shape A** in its **new** position on the diagram below.

You may use tracing paper.

You may use an angle measurer.



2 marks