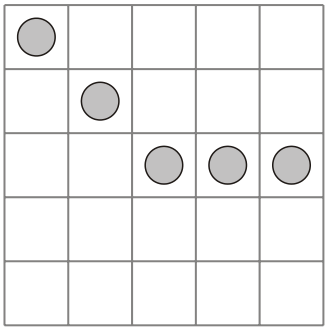
1. Draw **two** more circles on this grid to make a design that has a line of symmetry.

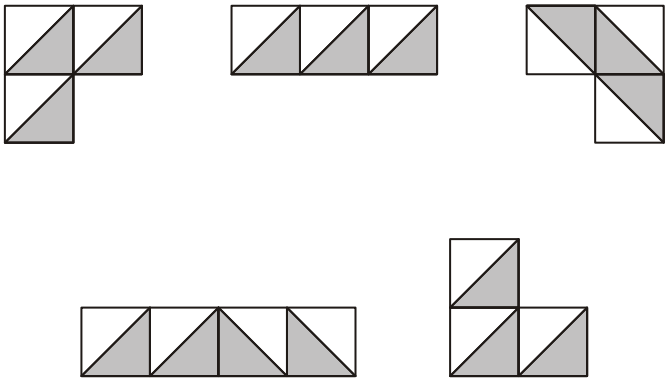


1 mark

2. Here are five patterns.

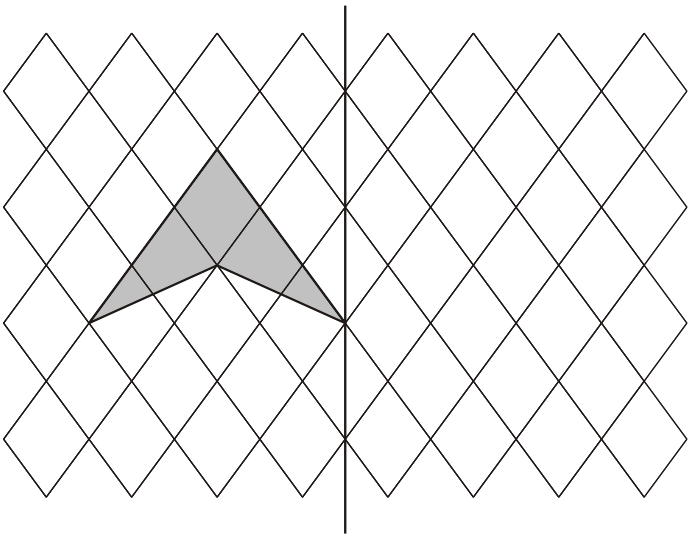
For each pattern put a tick (✓) if it has a line of symmetry.

Put a cross (✗) if it does not.



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

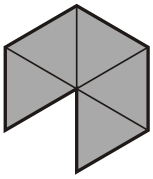
Use a ruler.

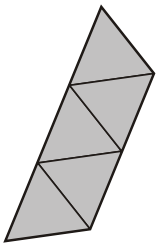


4. These two shapes are made from equilateral triangles.

Draw one line of symmetry on each shape.

Use a ruler.

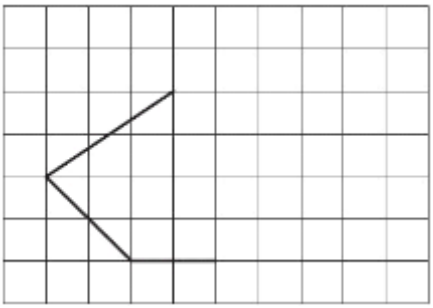




5. Here is part of a shape on a square grid.

Draw **two more** lines to make a shape which has a line of symmetry.

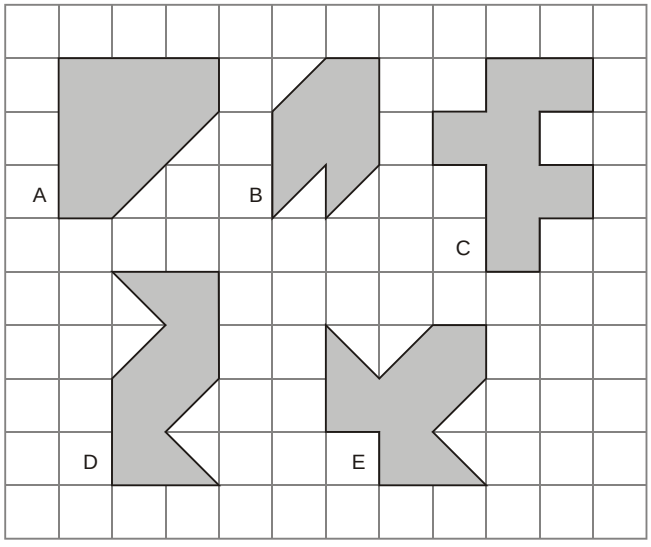
Use a ruler.



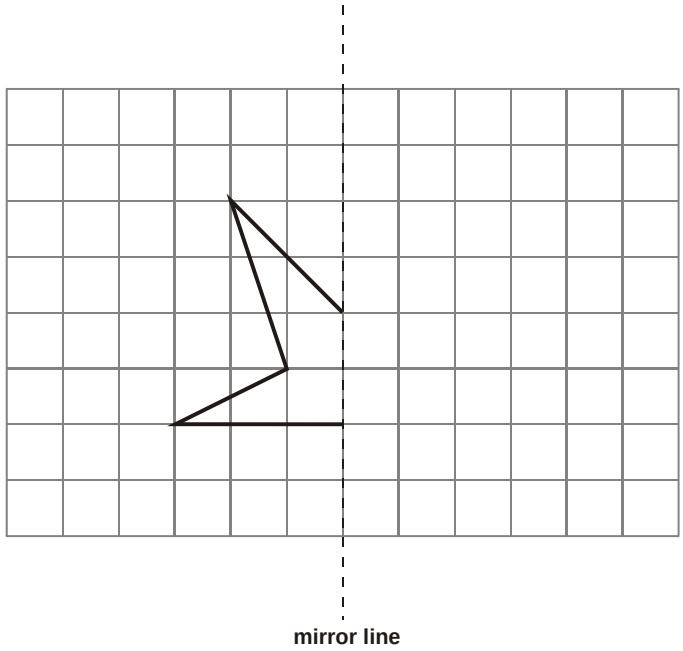
6. Here are five shapes on a square grid.

Write the letters of the **two** shapes which have a line of symmetry.

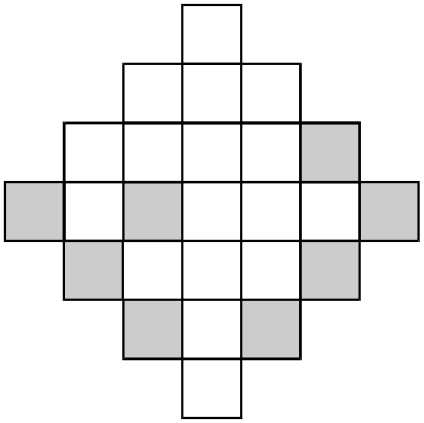
..... and .....



7. Complete the diagram below to make a shape that is symmetrical about the mirror line. Use a ruler.



8. Here is a grid with eight squares shaded in.
Shade in two more squares
to make a symmetrical pattern.

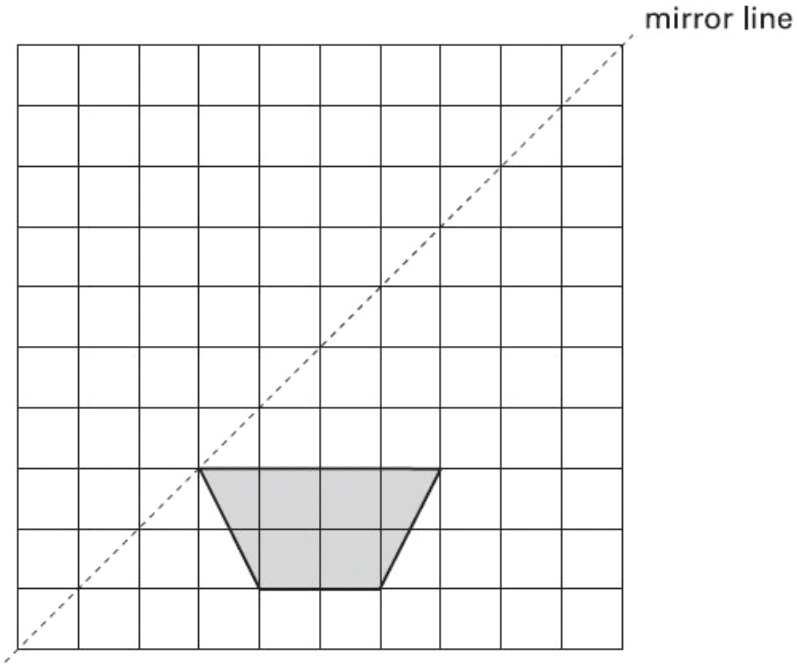


9. The letter D has a line of symmetry.
Tick (✓) **all** the other letters that have a line of symmetry.

D	**M**	**E**	**S**	**N**
✓				

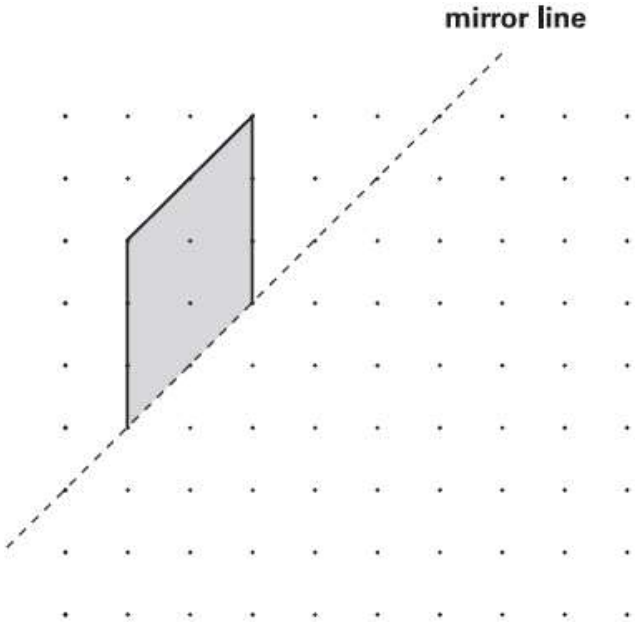
1 mark

10. Draw the reflection of this shape.



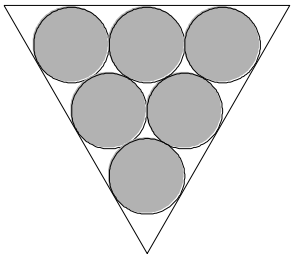
11. Draw the **reflection** of the shape in the **mirror line**.

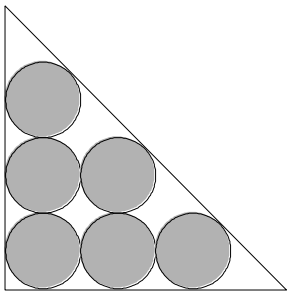
Use a ruler.

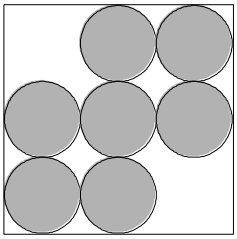


12. Use a ruler to draw **one** line of symmetry on **each** of these designs.

You may use a mirror or tracing paper.



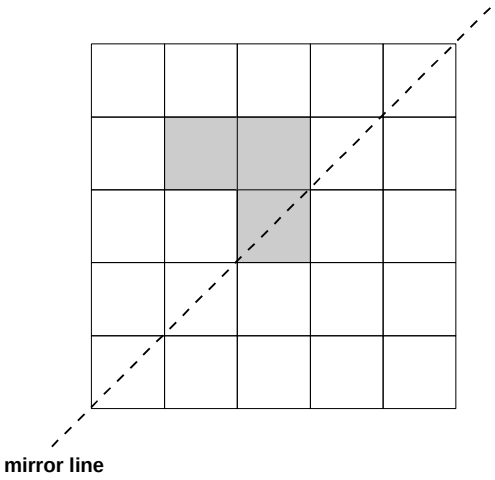




13. Shade in **two more squares**

to make this design symmetrical about the mirror line.

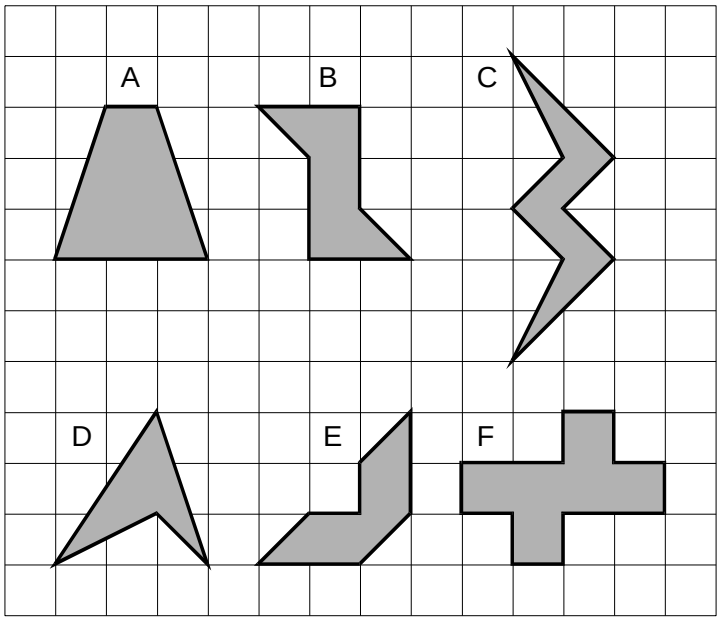
You may use a mirror or tracing paper.



14. Here are some shaded shapes on a grid.

Which **three** shapes have **reflective symmetry**?

You may use a mirror or tracing paper.



.....

.....

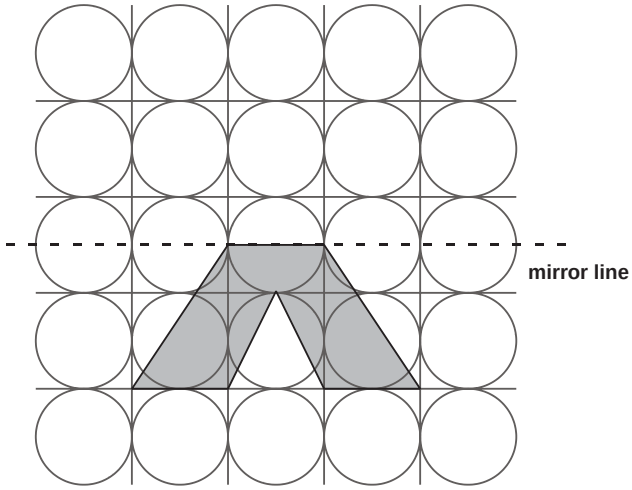
.....

15. A Z F H

Write each of these letters in the correct region on this diagram

	has reflective symmetry	**has no reflective symmetry**
has rotational symmetry		
has no rotational symmetry		

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

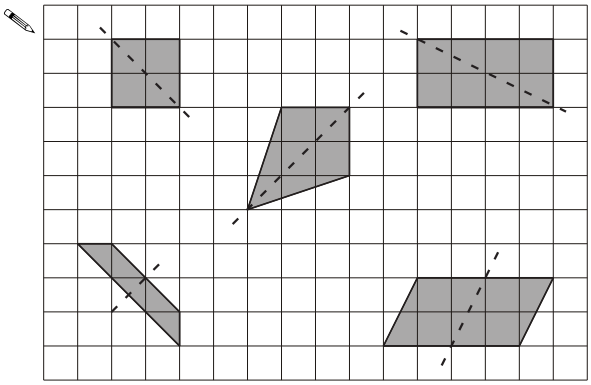


17. Here are five quadrilaterals on a square grid.

A dotted line has been drawn on each quadrilateral.

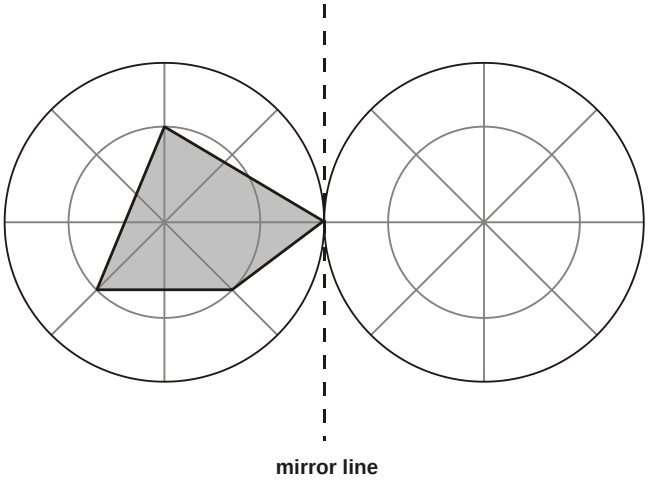
For each shape, put a tick (✓) if the dotted line is a line of symmetry.

Put a cross (✗) if it is not a line of symmetry.



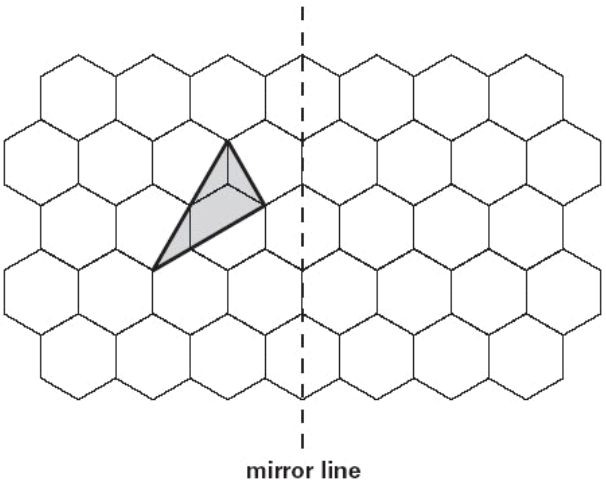
18. Draw the reflection of the shaded shape in the mirror line.

Use a ruler.



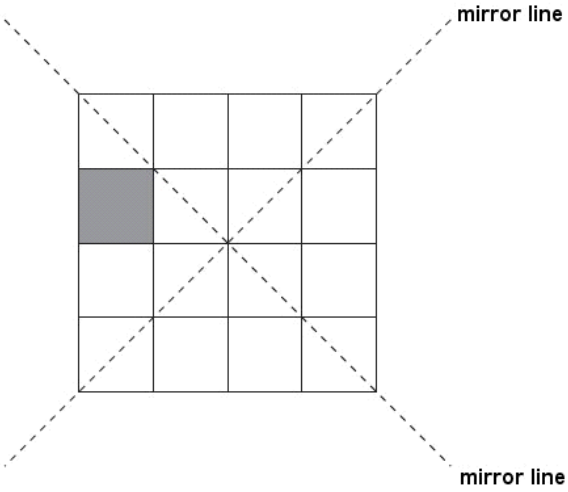
19. This grid is made of hexagons.

Draw the reflection of the shaded shape on the grid.



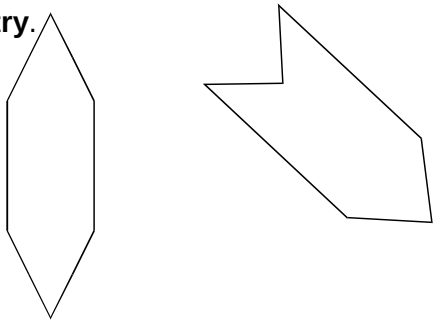
20. Here is a shaded square on a grid.

Shade in **3 more squares** so that the design is symmetrical in **both** mirror lines.



21. Each of these shapes has one or more **lines of symmetry**.

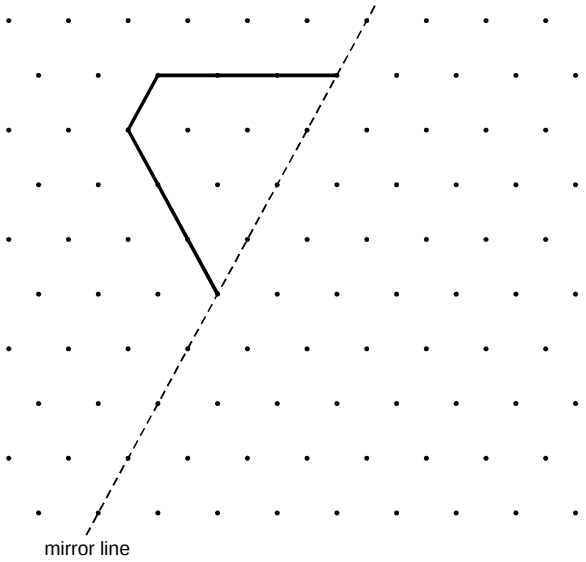
Draw **all** the **lines of symmetry** on each shape.



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

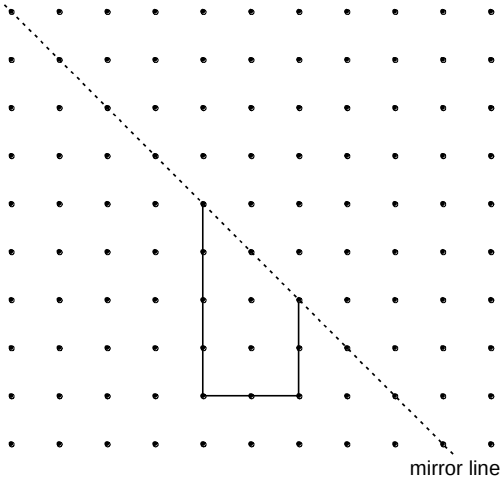
Use a ruler.

You may use a mirror or tracing paper.



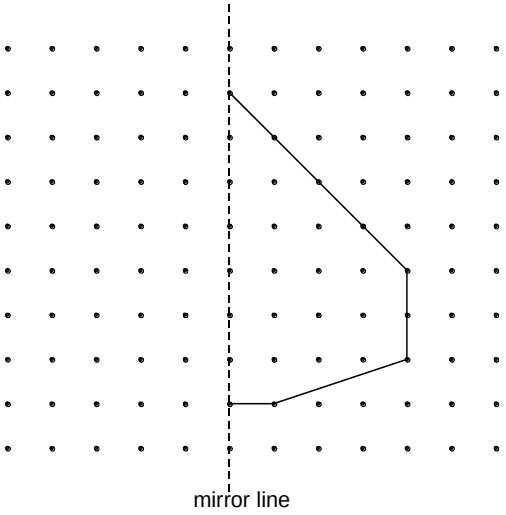
23. Use a ruler to draw the **reflection** of this shape in the mirror line.

You may use a mirror or tracing paper.

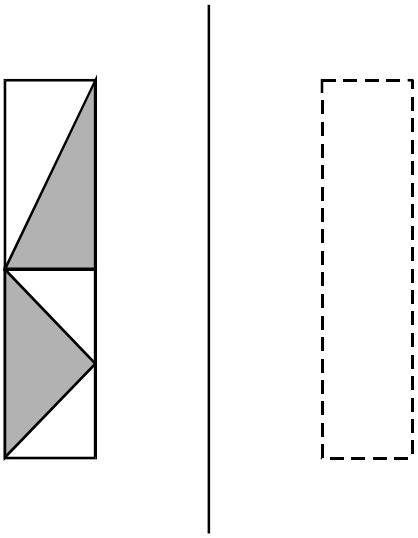


24. Draw in the reflection of the shape in the mirror line.

You may use a mirror and tracing paper.



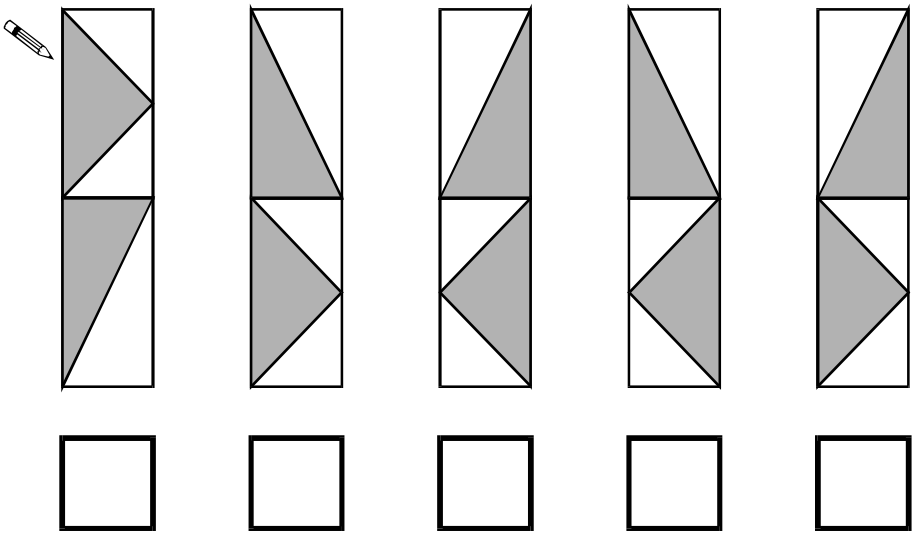
25. Here is a design and a mirror line.



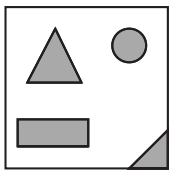
mirror line

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

Tick (✓) the correct design.

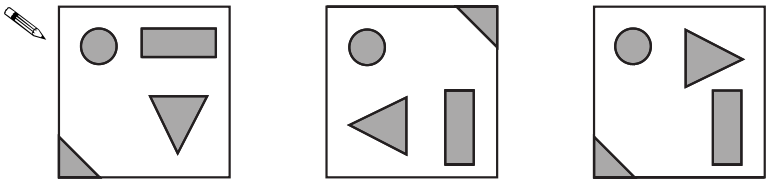


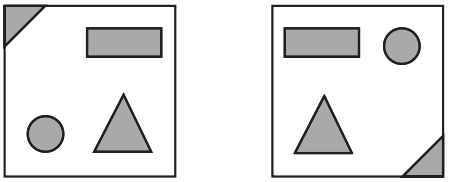
1. Stefan makes this design on a square tile.

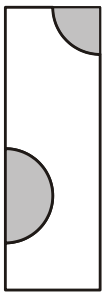


He turns the tile.

Put a tick (✓) on the tile below that has the same design as Stefan's tile.



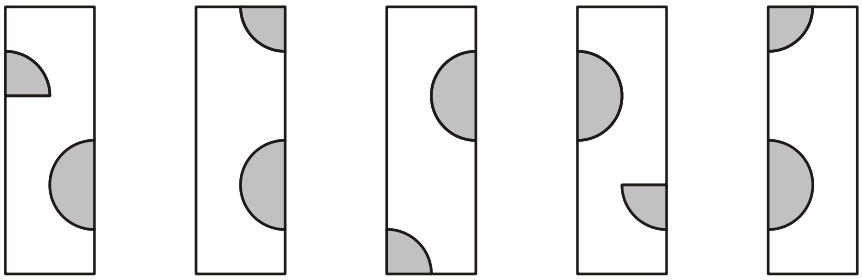




Here is a tile.

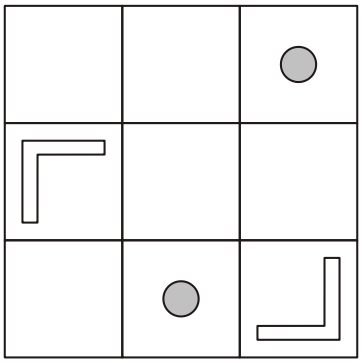
The tile is turned.

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



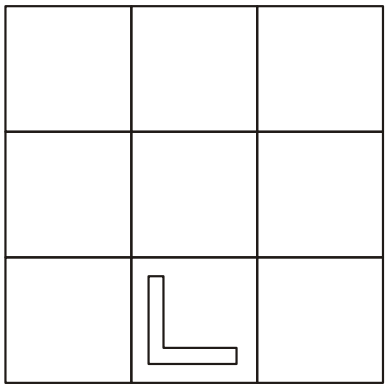
Tick (✓) the correct diagram.

There are four shapes on this diagram.

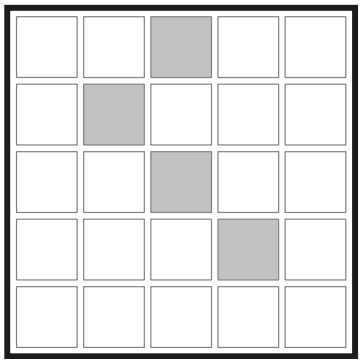


The diagram is turned to the new position on the right.

Draw the three missing shapes.

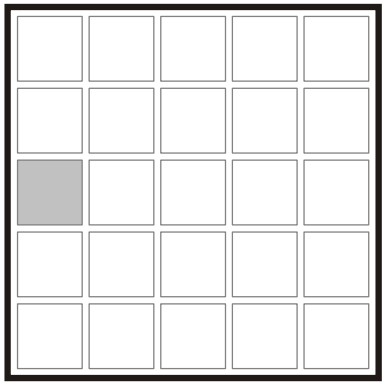


Ben makes this design on a grid.



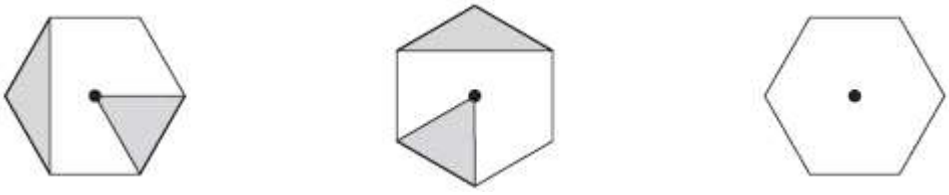
He rotates the grid to a new position.

Shade in the missing parts of the design.



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

Draw the two missing triangles on the last shape.

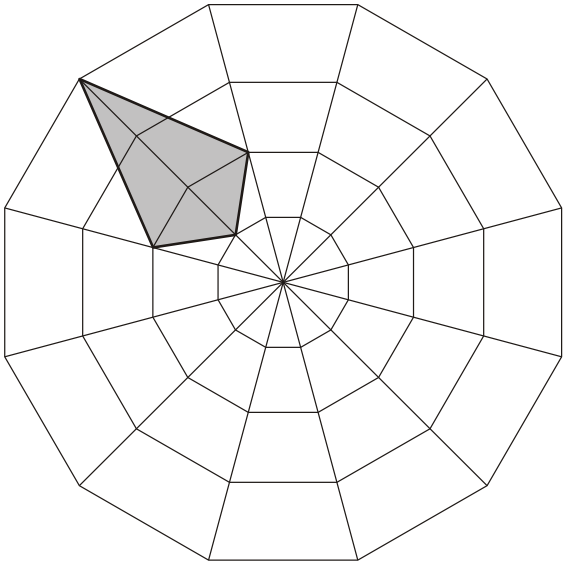


Here is a shaded shape on a grid.

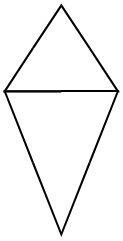
Jamie rotates the shape 90° **clockwise**

about the centre of the grid.

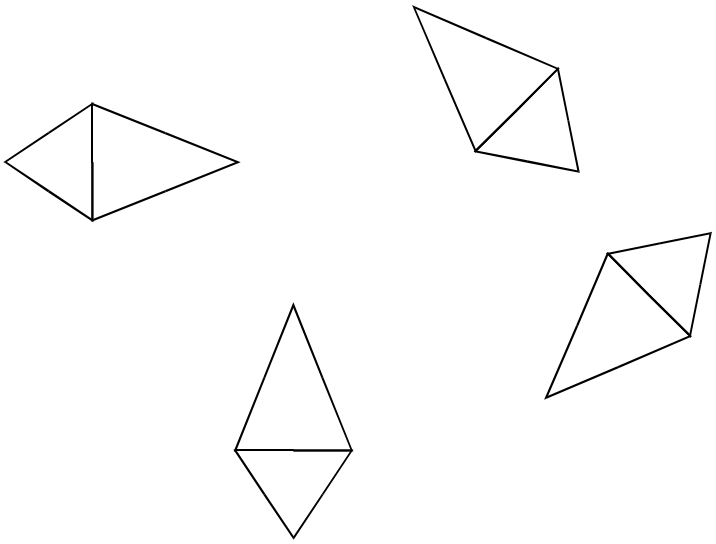
Draw the shaded shape in its new position.



What will this kite look like after a $\frac{1}{4}$ turn anticlockwise?



Tick (✓) the correct answer.



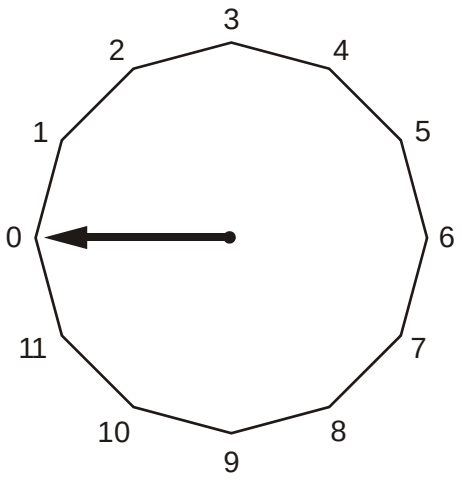
Here is an arrow.

The arrow is **rotated 90° clockwise**.

In which direction does the arrow now point?
Put a tick (✓) by the correct answer.

This regular 12-sided shape

has a number at each vertex.



Ben turns the pointer from zero, clockwise through 150°

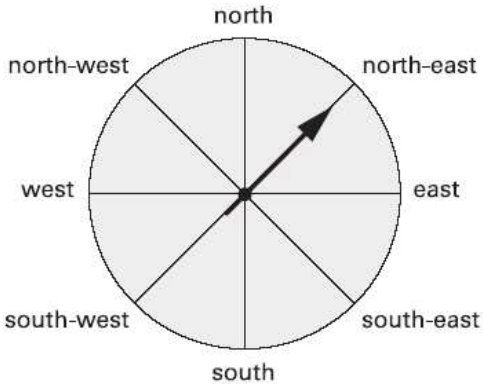
Which number will the pointer now be at?

1 mark

Nisha turns the pointer clockwise from

number 2 to number 11

The arrow is pointing **north-east**.



The arrow is moved a **quarter turn clockwise**.

In which direction is the arrow pointing after it is moved?

.....

1 mark

Through how many degrees does the pointer turn?

°

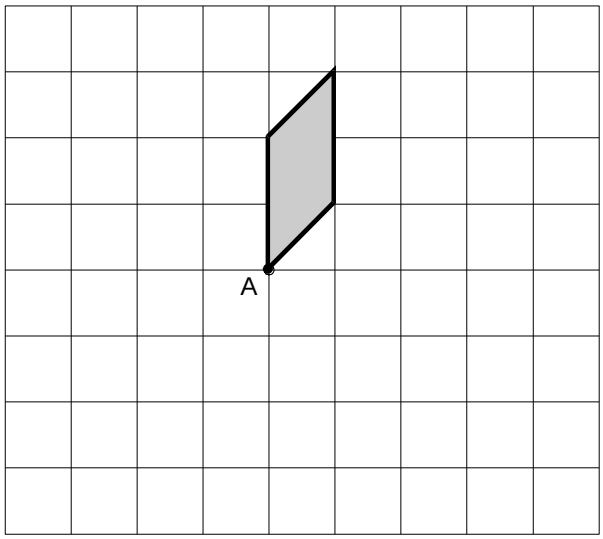
1 mark

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.



This rectangle is **rotated 90° clockwise** about point **A**.

Draw the rectangle in its new position.

You may use tracing paper.