

SCORE

Geometry

With Classified
answer book

8

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15- Rotation

1. Match each card to the turn shown.

90
anti clockwise

180

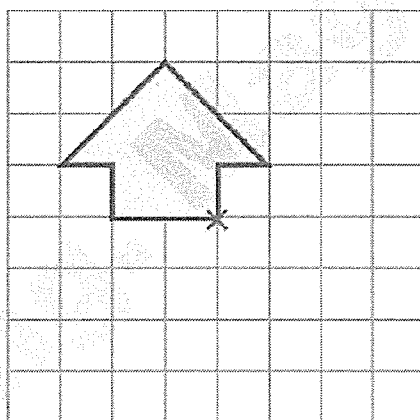
270 clockwise

360

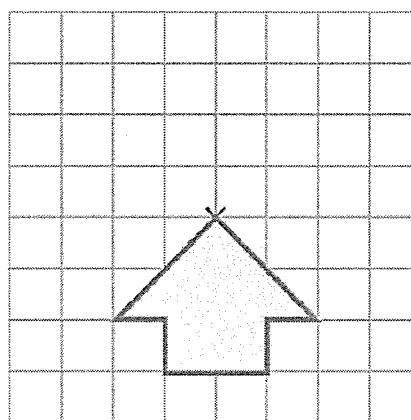


2. Rotate each shape as instructed using × as the centre of rotation.

180°



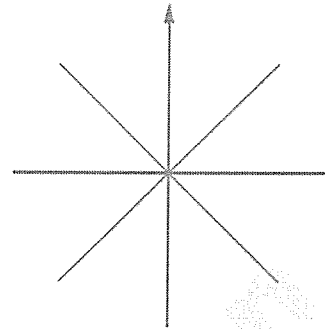
90° anti clockwise



3. (a) Terry is facing north.

He turns clockwise through three right angles. Which direction is he facing now?

.....



(b) Lily is facing east.

She turns clockwise through 90 degrees.

Which direction is she facing now?

.....

(c) Mina is facing west.

She turns clockwise to face north-west.

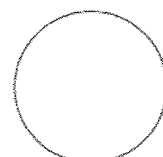
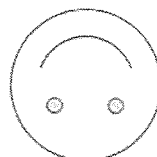
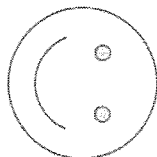
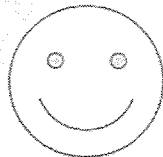
Through how many degrees does she turn?


..... degrees

4. The diagram shows a rotating face.

The face rotates clockwise through one right angle each time.

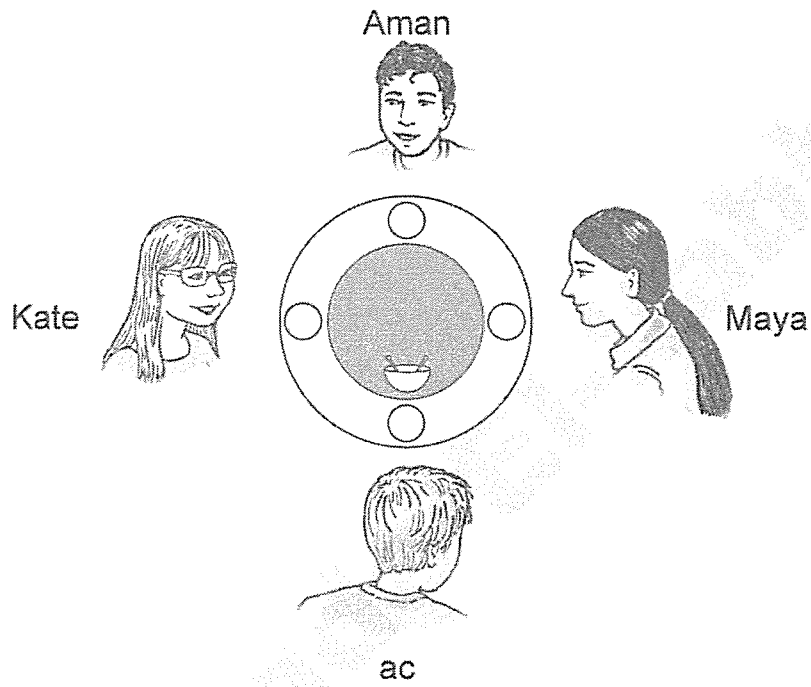
Complete the last face.



5. Jack and his friends eat some rice in a restaurant.
Their table has a big grey tray in the middle.
The tray can be turned to share the rice. 

(a) Jack wants to turn the tray so that the rice gets to Maya.

How many degrees could Jack turn the tray?

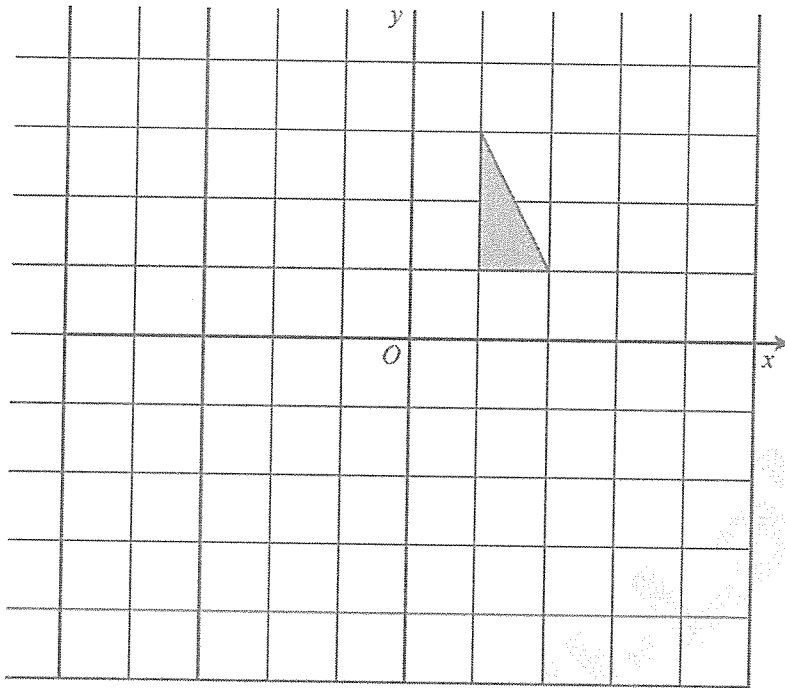


.....

(b) Give a different number of degrees Jack could turn the tray so that the rice gets to Maya.

.....

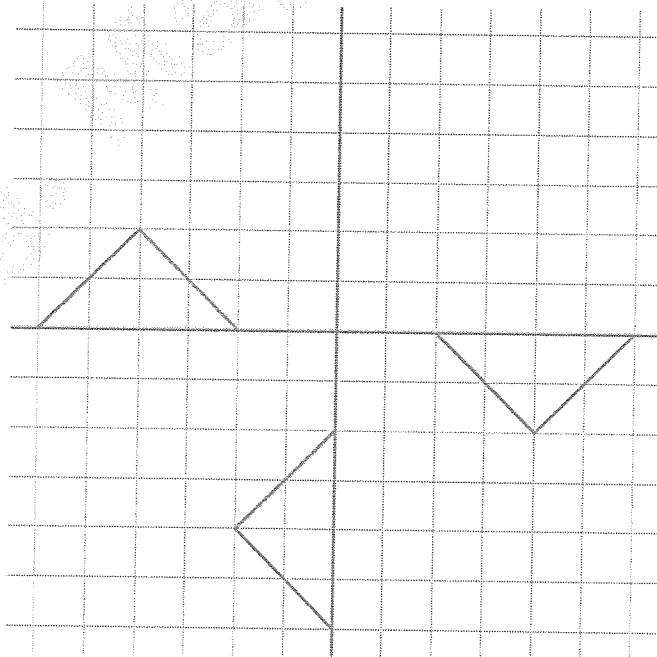
6.



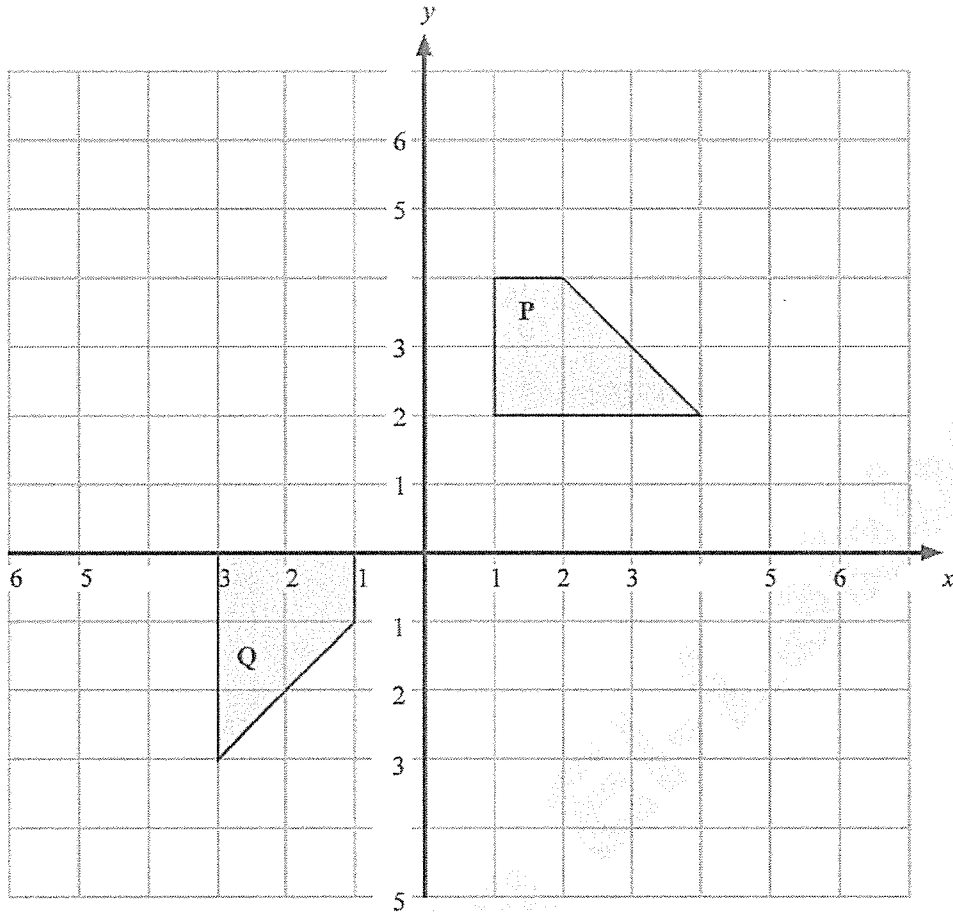
Rotate the triangle a half turn about the point O.

7. . The pattern below is not finished.

Draw one more triangle so that the pattern looks the same when it is rotated through one or more right angles.



8.



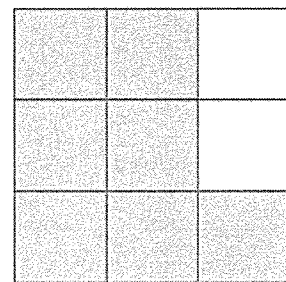
Describe fully the single transformation that will map shape P onto shape Q.

.....

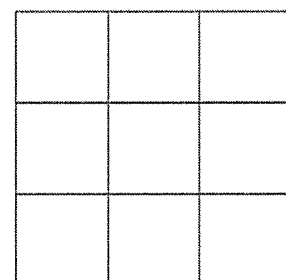
.....

9. Part of a square grid is shaded.

a) The diagram shows the same grid after a quarter turn clockwise.



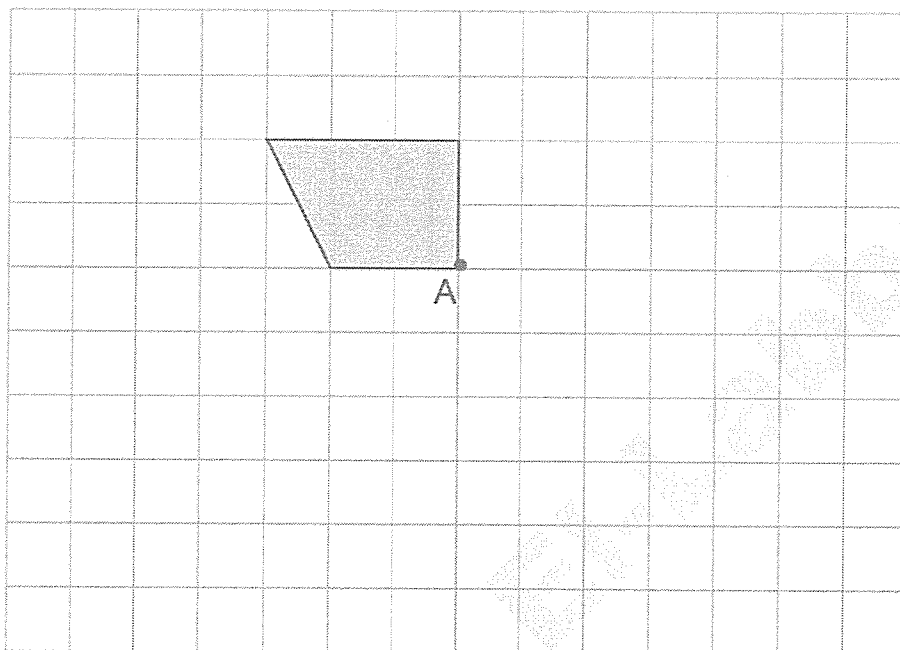
b) Shade this diagram to show the grid after another quarter turn clockwise.



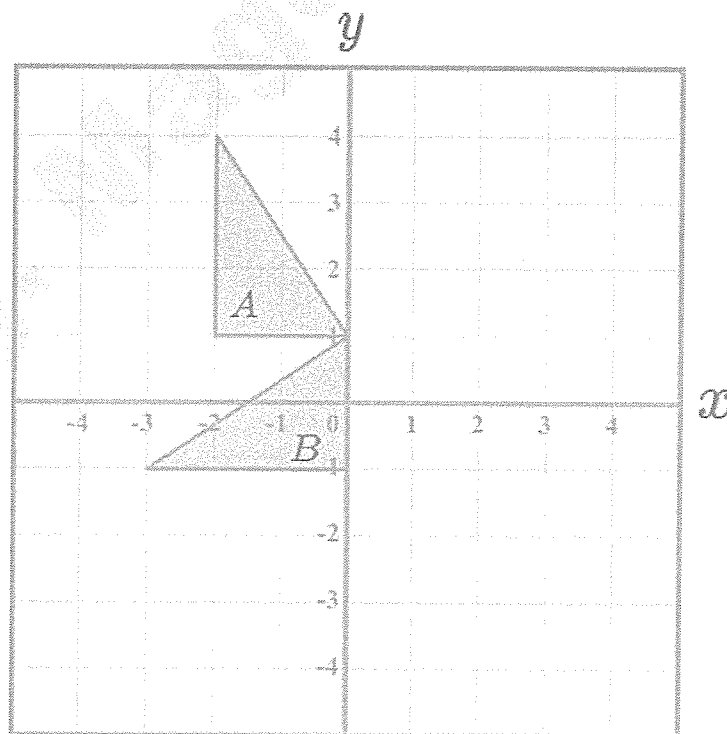
10. Here is a shaded shape drawn on a square grid.

Rotate the shape 180° about point A.

Draw the shape in its new position on the grid.



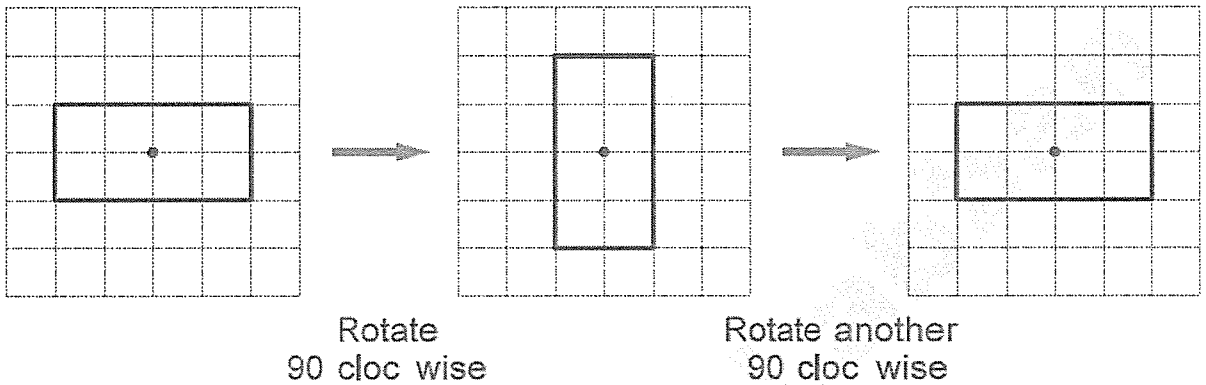
11. Describe fully the single rotation that maps shape A onto shape B



12. The shapes below are drawn on square grids.

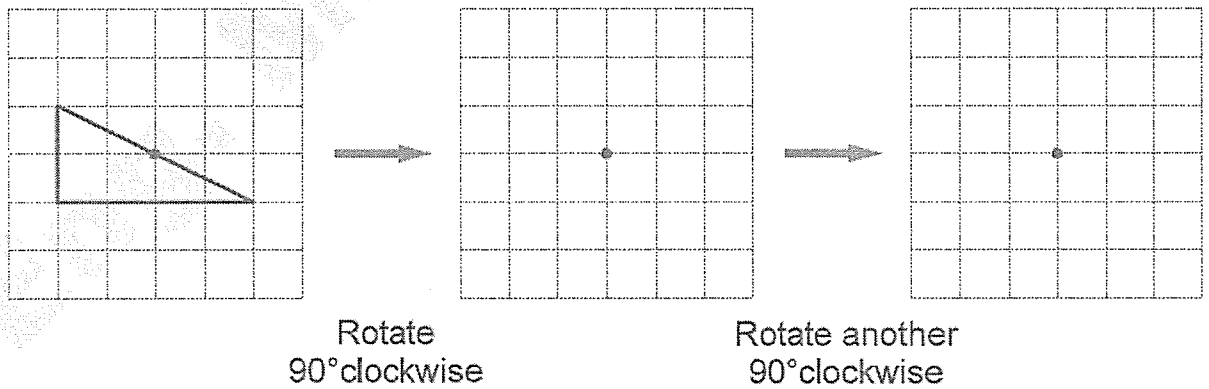
The diagrams show a rectangle that is rotated, then rotated again.

The center of rotation is marked •

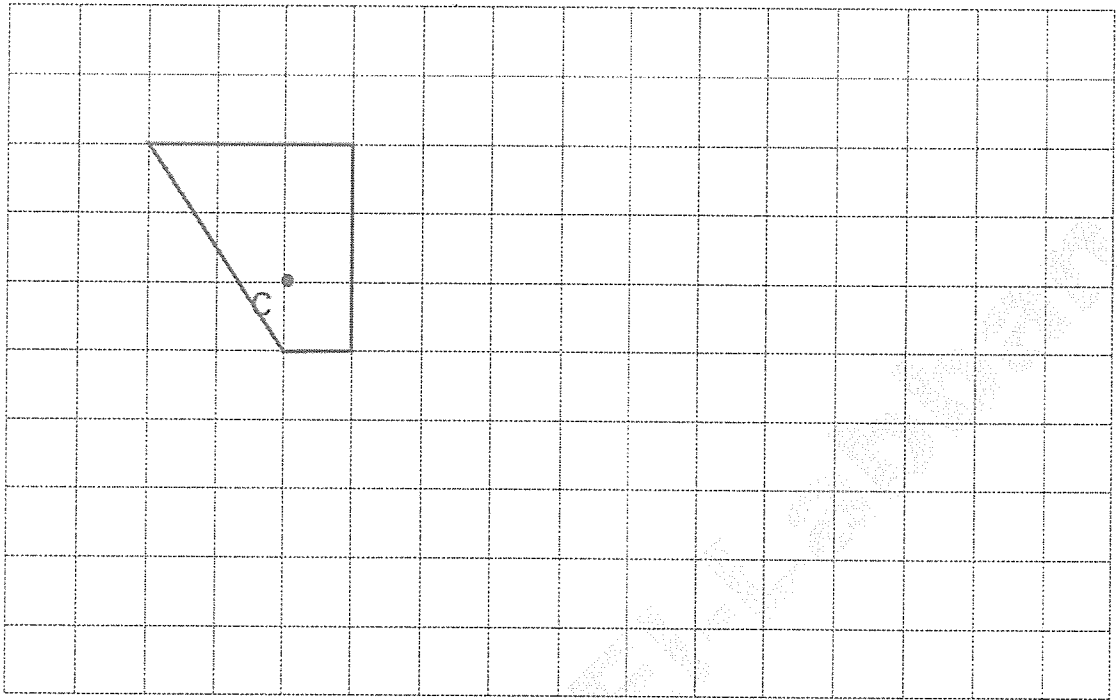


Complete the diagrams below to show the triangle when it is rotated, then rotated again.

The centre of rotation is marked •



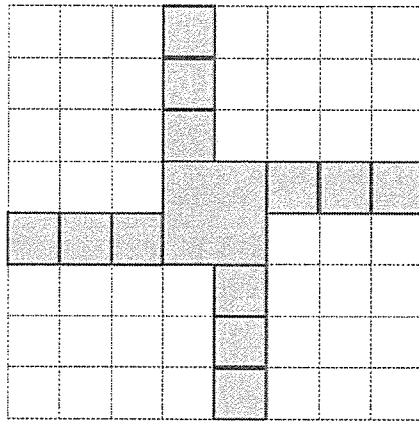
13. Look at the shape drawn on the square grid.



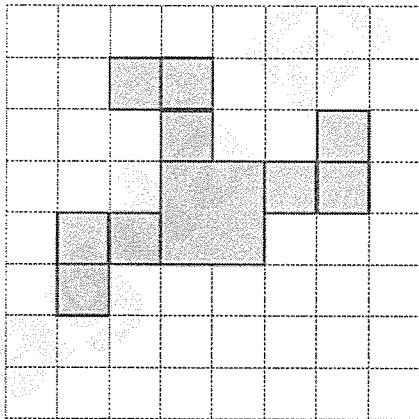
On the grid, draw a 90° clockwise rotation of the shape, using point C as the center of rotation.

14. 'Windmill' patterns look the same when you turn the grid through one or more right angles.

Example



- (a) shade 3 squares to complete the windmill pattern on the square grid below.



- (b) shade 6 squares to complete the windmill pattern on the square grid below.

