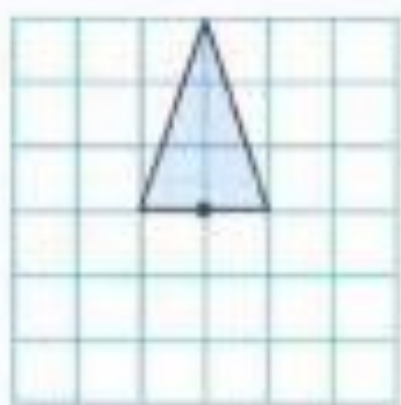# Rotation

Let's investigate

Look at the isosceles triangle drawn on a grid.

Rotate the triangle 90° clockwise about the ●

Draw the image.

Continue rotating the triangle twice more.

What shape have you made?

Investigate rotating similar shapes you see during the day. Write a report on your findings.

You might find tracing paper helpful.
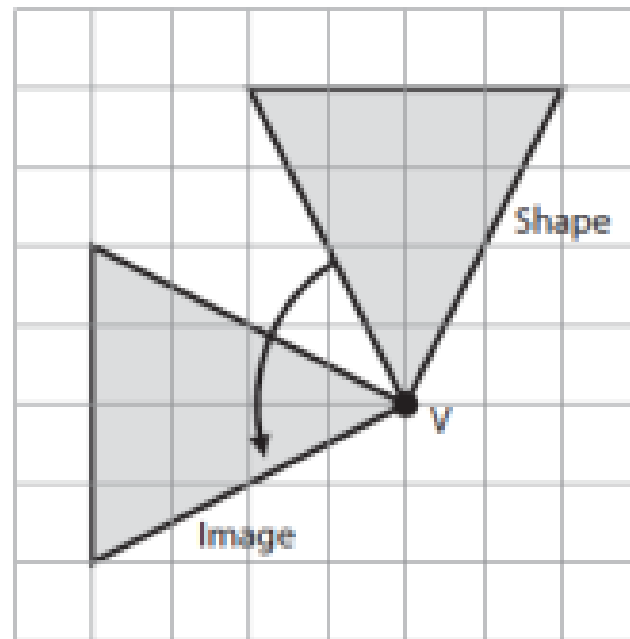
A **rotation** is a turn about a **point of rotation**.

When we show the shape in its new position, we draw a **rotation image** of the shape.

A shape can rotate **clockwise** about a vertex V:
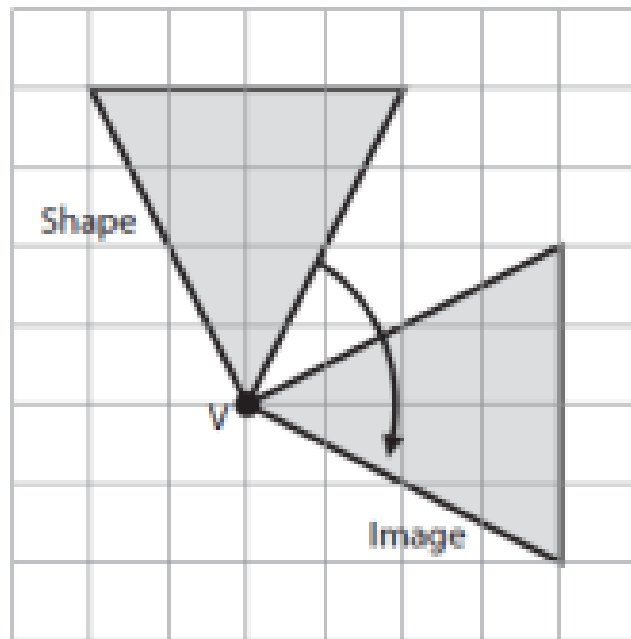
This triangle has rotated a $\frac{1}{4}$ turn clockwise.

A shape can rotate **counterclockwise** about a vertex V:

This triangle has rotated a $\frac{1}{4}$ turn counterclockwise.

A rotation is described by:

- the direction of the turn (clockwise or counterclockwise),

- the fraction of the turn, and

- the point of rotation

2 The diagram shows a trapezium on a square grid.

Copy the shape on squared paper.
Rotate the trapezium 90° clockwise about point A and draw the image.
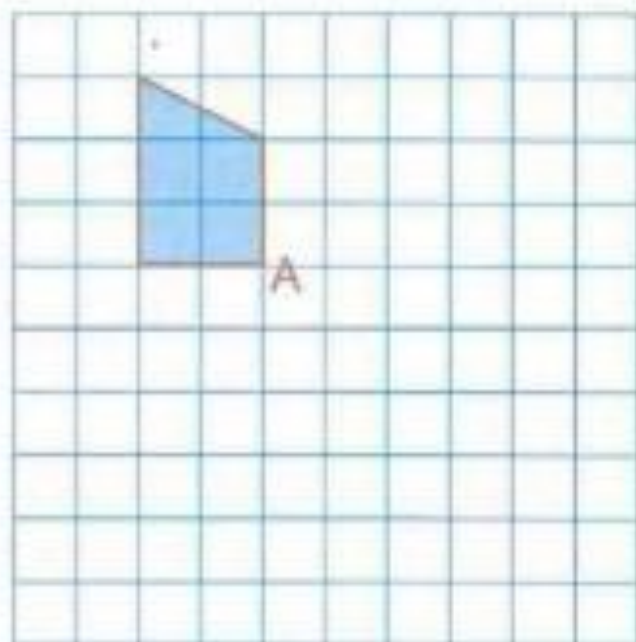
3 The diagram shows an octagon on a 12 by 12 square grid.
Copy the shape onto squared paper.
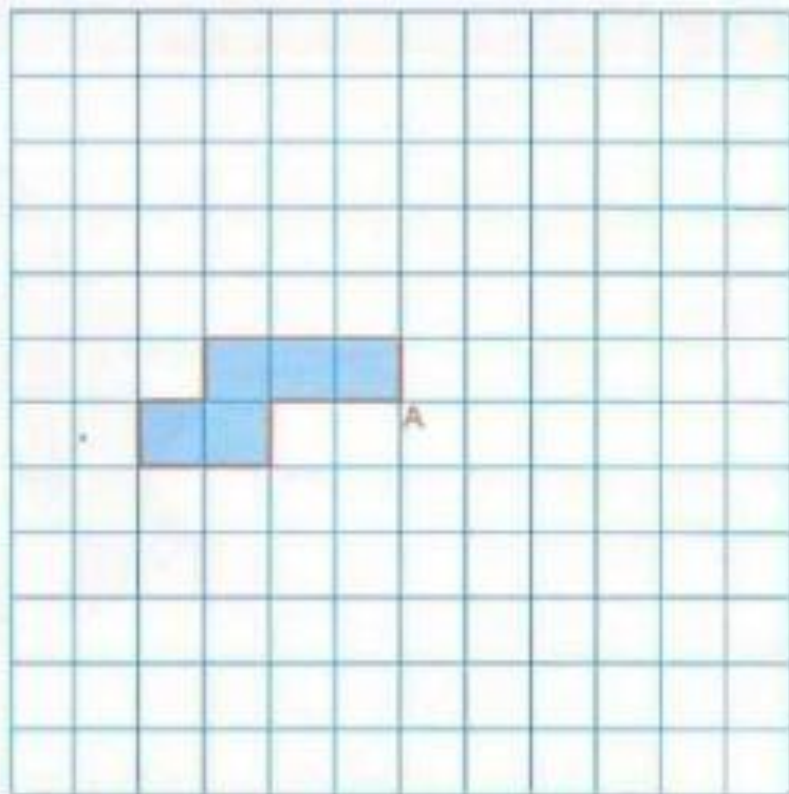
Rotate the octagon 90° clockwise about point A and draw the image.
Rotate the new image 90° clockwise about A again two more times,
each time drawing the image.