



Challenge

Use either a four quadrant coordinates grid with vertical and horizontal axes marked to at least ± 6 , or use squared paper to draw and label a four quadrant coordinates grid.

Draw a polygon in the first quadrant.

Label the vertices A, B, C, D ... and write down the coordinates for each vertex.

Draw the reflection of your design in the y-axis and then reflect both shapes in the x-axis.

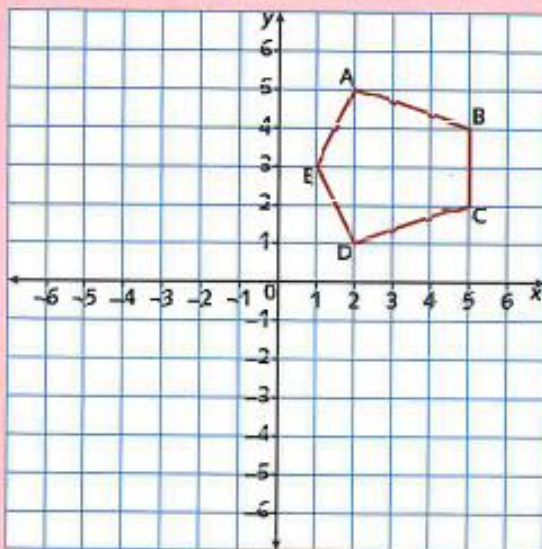
Write the coordinates for the vertices of each of the three reflected shapes.

A (2, 5) B (5, 4),
C (5, 2)



You will need:

- four quadrant coordinates grids or squared paper
- ruler
- coloured pencils



Think about ...

Don't draw a quadrilateral as your polygon. Draw a polygon with at least five sides and vertices.

Draw the first quadrant polygon in an interesting orientation. Your polygon doesn't have to be regular.



When colouring your design for the 'What if?', think about whether your pattern will show vertical, horizontal or diagonal symmetry.

What if?

Look at your completed design. Colour your design to make a symmetrical pattern.