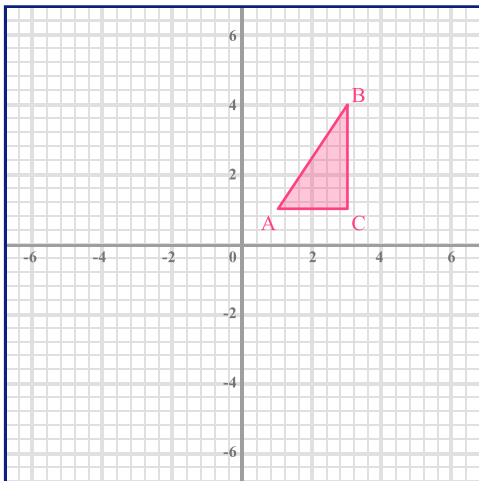


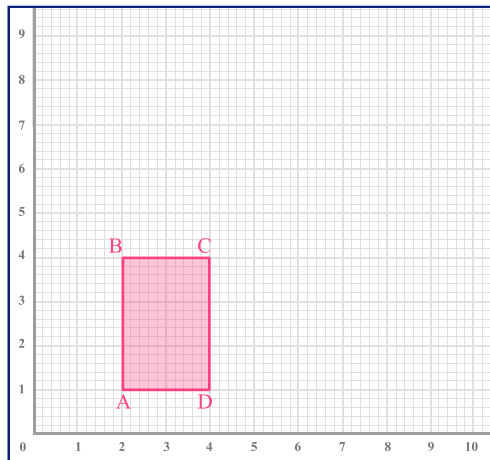
## Reflections

Reflect triangle ABC in the line  $y = -x$ .



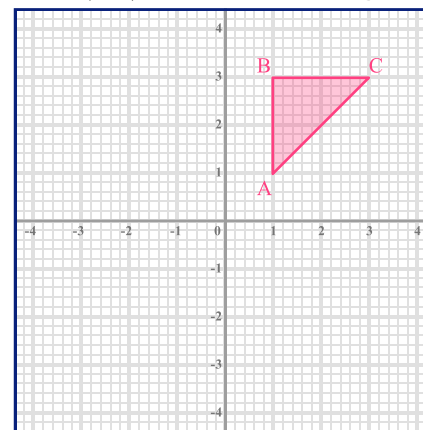
## Enlargements

Enlarge rectangle ABCD by a scale factor of 2 about the point (1, 1).



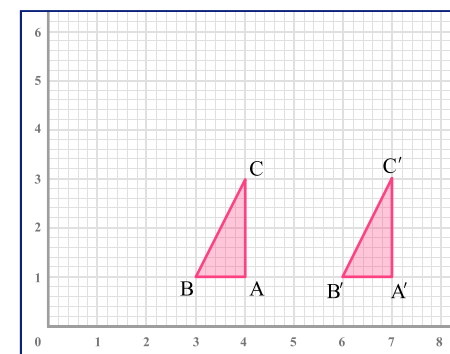
## Rotations

- Rotate triangle ABC 90° clockwise about the origin, and label the image DEF.
- Rotate triangle ABC 180° about the point (0, 2), and label the image KLM.



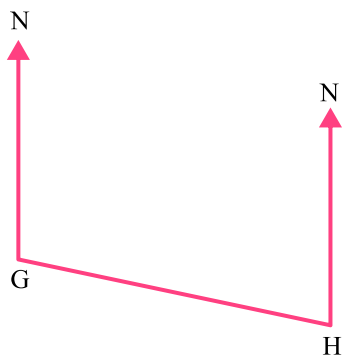
## Translations

- Describe the transformation from ABC to A'B'C'.
- Draw the image when ABC is translated to DEF by the vector  $\begin{bmatrix} -2 \\ 2 \end{bmatrix}$ .



## Bearings

The bearing of H from G is 108°.  
What is the bearing of G from H?



## Constructions

Using a straight edge and compasses to construct an equilateral triangle of side length 5cm, the base of which sits on line AB.



## Loci

Square ABCD has side length  $w$  units. Shade the region inside the square that is closer to AD than AB, and less than  $w$  units from A.



## Vectors

OAB forms a triangle with  $\vec{OA} = \underline{a}$  and  $\vec{OB} = \underline{b}$ .

- Express  $\vec{AB}$  in terms of  $\underline{a}$  and  $\underline{b}$ .
- Given that P is the point such that  $AP : PB = 3 : 1$ , express  $\vec{OP}$  in terms of  $\underline{a}$  and  $\underline{b}$ .

