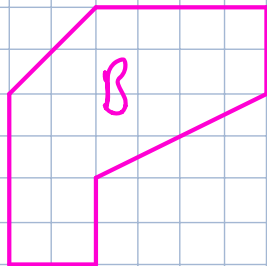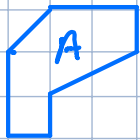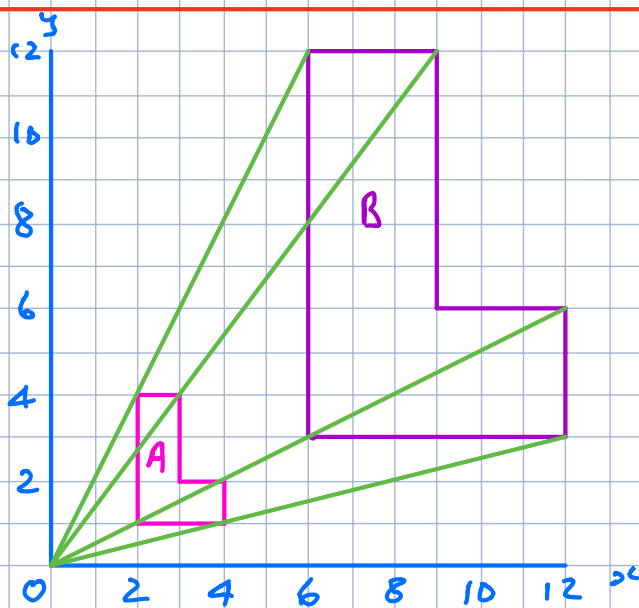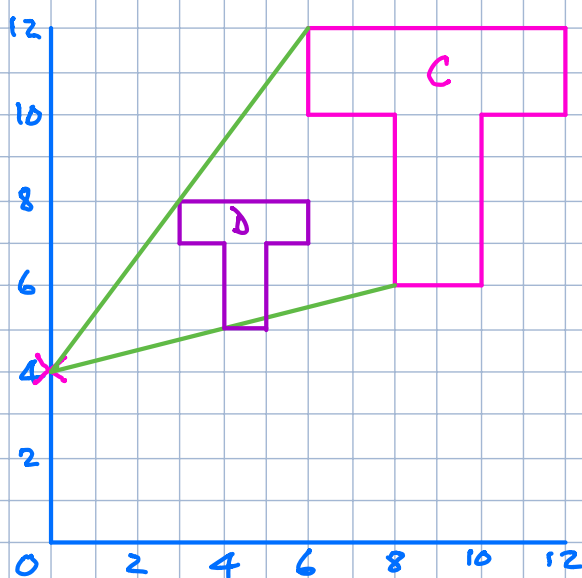# Enlargements

A has been enlarged by scale factor 2 to give B

A has been enlarged by scale factor 3 to give C
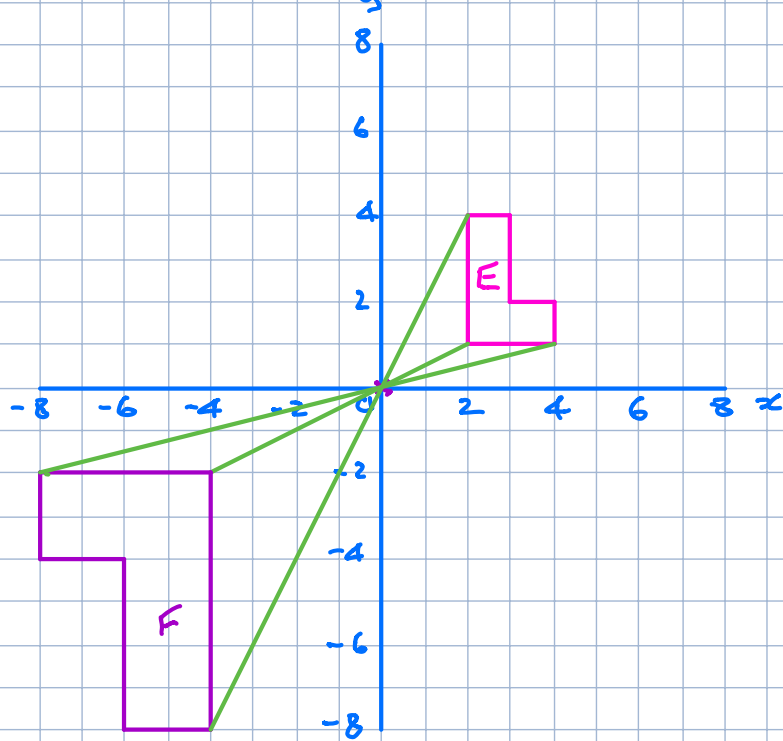
A has been enlarged by scale factor $\frac{1}{2}$ to give D

Enlarge A by s.f. 3
about (0,0) to give B

Enlarge C by s.f. $\frac{1}{2}$
about (0,4)
to give D

Enlarge shape E
by s.f. −2 about (0,0)
to give F

The negative scale factor causes the image to be on the opposite side of the centre of enlargement.

The image appears to be rotated 180°

Summary

We measure the distance from the centre of enlargement to a point on the figure we are looking to enlarge. We multiply this distance by the scale factor and draw the new enlarged figure at the point this gives us.

If the scale factor is negative then the new figure is on the opposite side of the centre of enlargement to the original figure.