Enlargements
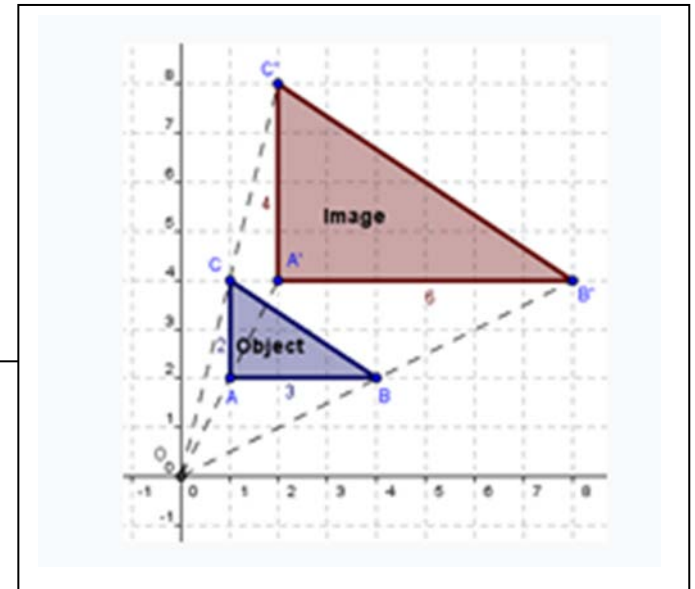
The **centre of enlargement** is the point from which the enlargement is constructed.

The **scale factor, k**, is the number by which the object is enlarged.

$$Scale\ Factor(k) = \frac{Image\ Length}{Object\ Length}$$

(The image length over the object length will give us the scale factor)

If the scale factor is greater than one, $k > 1$, the figure will be enlarged.
If the scale factor is less than one $k < 1$, the figure will be reduced.

$Image\ Area = k^2 \times Object\ Area$

When a figure is enlarged by a scale factor of k the image figure is enlarged by a scale factor of k^2

$Image\ Volume = k^3 \times Object\ Volume$

When a figure is enlarged by a scale factor of k the volume of the enlarged figure is enlarged by a scale factor of k^2