

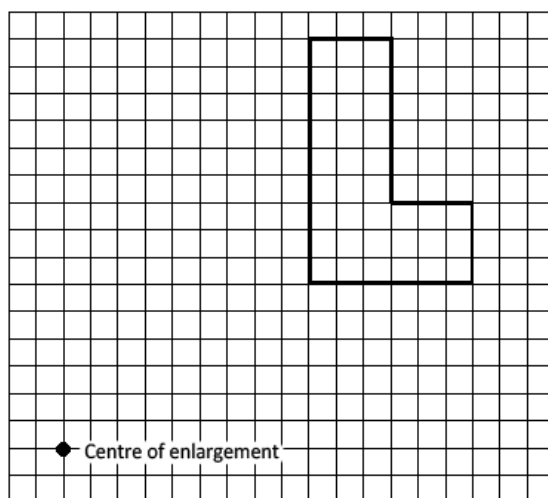
## Reducing the logo

This task is about using the centre of enlargement to enlarge a shape.



LM FM is the logo for Loud Music FM. Their logo needs to be reduced to fit into a magazine advertisement.

a) On the grid below, enlarge the letter L by a scale factor of  $\frac{1}{3}$  using the marked centre of enlargement.



b) If the whole of the original logo "LM FM" had an area of  $108 \text{ cm}^2$  what would be the area of the smaller logo, given the scale factor is  $\frac{1}{3}$ ?

☐ 4  $\text{cm}^2$

☐ 12  $\text{cm}^2$

☐ 18  $\text{cm}^2$

☐ 36  $\text{cm}^2$

☐ 54  $\text{cm}^2$