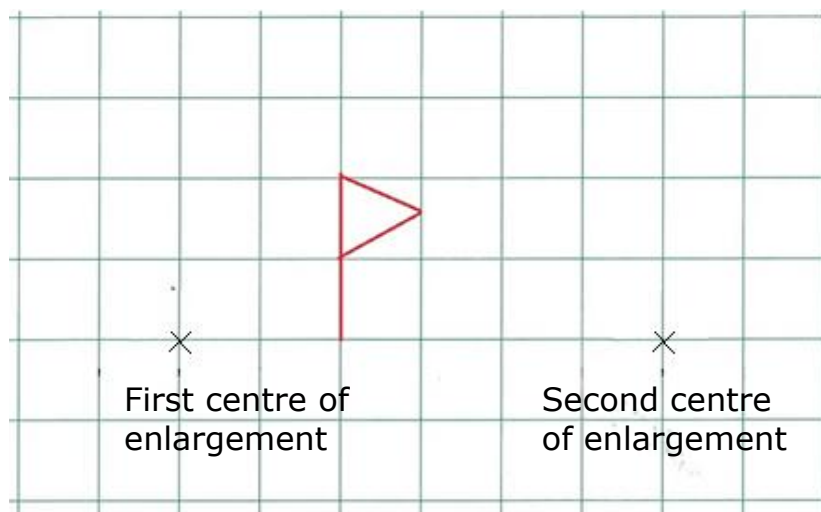Starting from the diagram on the squared paper, follow these instructions:

Enlarge the flag by a scale factor of 2 about the first centre of enlargement. Now enlarge the resulting flag by a scale factor of $\frac{1}{2}$ about the second centre of enlargement. Can you find a single transformation that takes the first flag to the last flag?

Try this with the flag in different positions, and with different centres of enlargement. Describe what will happen for any two centres of enlargement and a flag in any position.

Now try changing the scale factors so that the first enlargement is by scale factor 3 and the second by scale factor $\frac{1}{3}$.

Try some similar pairs (where the first scale factor is k and the second factor is $\frac{1}{k}$).

Describe what will happen if the first scale factor is k and the second $\frac{1}{k}$.