**The effect on coordinates**

A triangle is given with the coordinates A (1,1), B (2,1) and C (2,3). Draw the triangle.

The triangle is reflected in the line x = 3. What are the coordinates of the image?

What if the triangle were reflected on the line x = 4?

Record your results. Investigate the effect of changing the line of reflection on the image’s coordinates.

You could also explore y = 3, etc. And then y = x, etc.

Similar investigations could be developed with rotation and/or enlargement: systematically changing the centre of rotation / centre of enlargement, and investigating the effect on the image’s coordinates.

**Reflections and rotation**

A triangle is given with coordinates A (1,1), B (2,1) and C (2,3).

This triangle is reflected in the line x = 4, then this image is reflected in the line y = x. Record the coordinates of the second image.

If, instead of reflecting twice, the original triangle was rotated, where would the centre of rotation have to be so that its image was at the same place as after the two reflections?

What do you notice about this centre of rotation? Investigate.