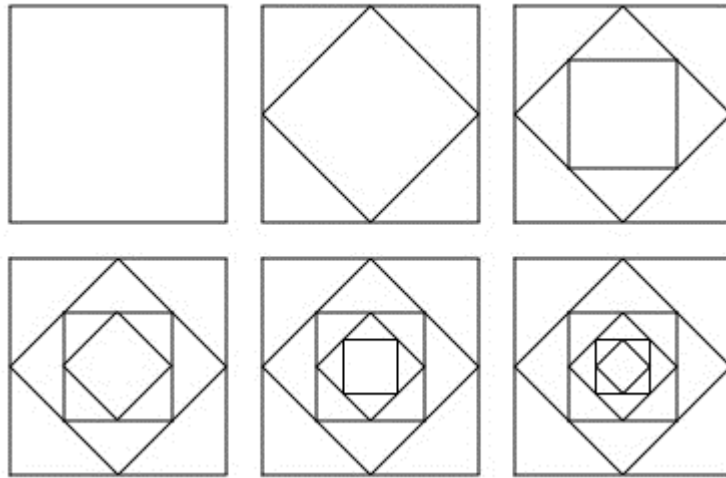


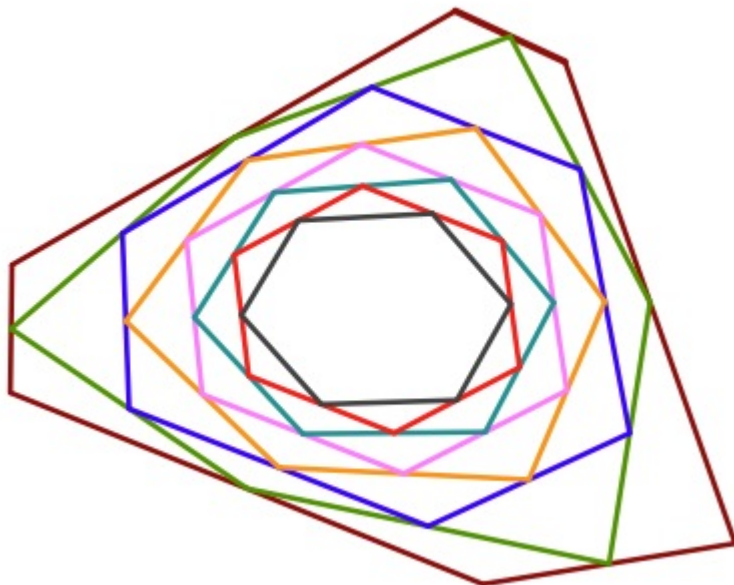
Shaping It



These pictures were made quite simply by starting with a square, finding the half-way point on each side and joining those points up. This creates a smaller shape (which also happens to be a square) inside the original. The half-way points of this new shape are then joined up to make a third shape. This way of making new shapes is continued until it gets too small to do properly.

You can, of course, start with any straight-lined shape.

Here's one where I've coloured each new halving line to help to see what has happened more clearly.



So, it's your turn to have a go.

It's probably good to start with a fairly large shape since it's going to get smaller and smaller each time. Don't forget to **use a ruler!**

Here are some challenges for you to pursue:

- Having made a design like one above, cut out the triangles and the smallest inner shape and rearrange the pieces to form a new shape/design.
- Talk about and record the things you notice as you have drawn more and more halving lines.
- What is happening to the enclosed area and perimeter each time the sides are halved? (Try investigating a regular shape first.)