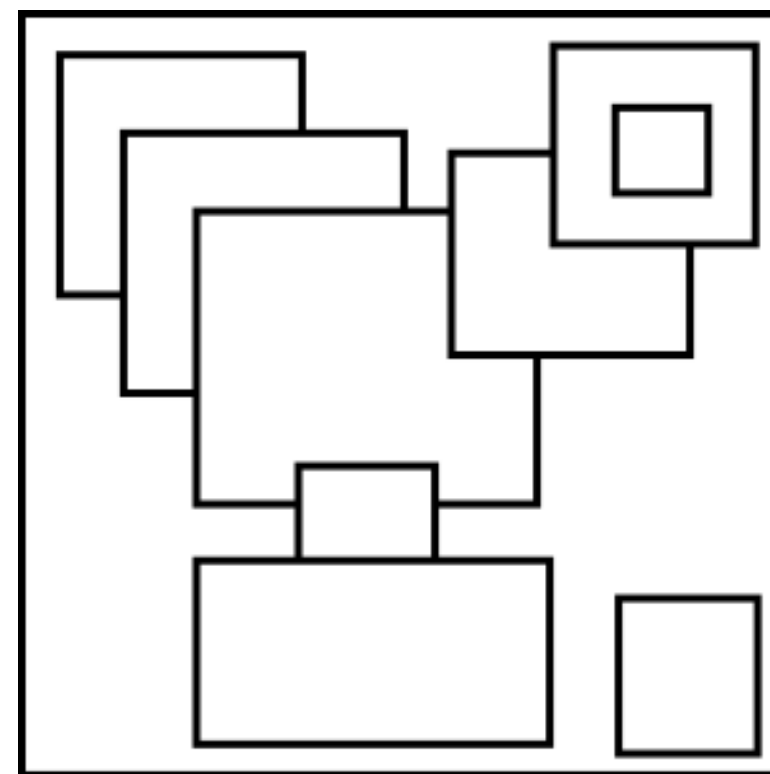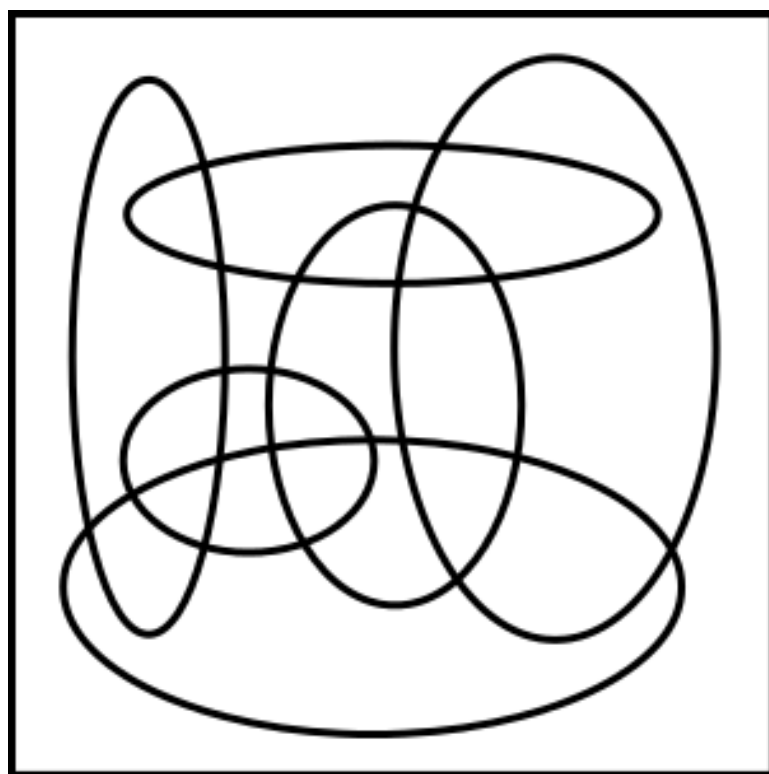# Painting by Numbers

What is the smallest number of colours needed to colour these pictures according to the rules below?

- **No two regions of the same colour can share a border**
- **Two regions of the same colour are allowed to meet at a point**

Thousands more problems can be found on the NRICH maths website:

http://nrich.maths.org