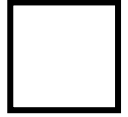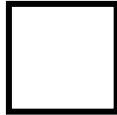# Shading Shapes

Imagine we have one coloured pencil (blue) and we are going to shade this square.

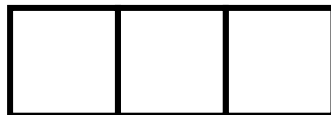There are two ways of shading the square. We can shade it white (not shading the square at all) or blue.

Now imagine we have a pattern made of two squares like this:

There are four ways of shading these two squares with one colour. Can you find the four ways?

What if the shape consisted of three squares?

Can you find the number of ways of shading a pattern made up of a row of ten squares?

Can you find a formula linking the number of squares and the number of ways of shading the pattern?