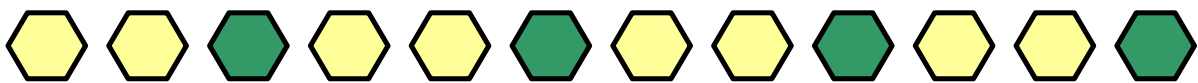# Codebreaker

Look at the shapes below. See if you can break their code. Each shape has stands for a number. Different properties have different shapes or colours.
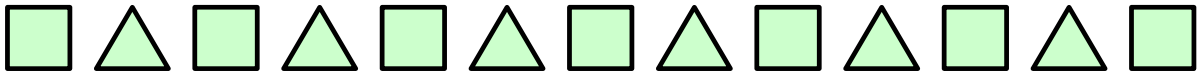
For instance, in the pattern below, the property that is shown is that a green number would be a multiple of three (or in the three times table) as opposed to a number that is yellow, which is not a multiple of three.
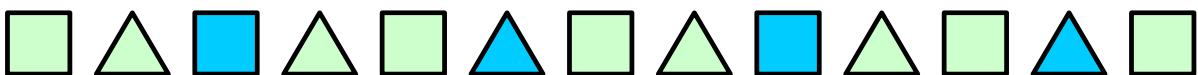
One way you could work out which number each shape represented would be to number them so the pattern above might look like this.

See if you can work out the following patterns:

Can you work out what the blue shapes are and what the blue triangles are?

Below, there is a slightly more difficult problem. Can you work out what the difference between the numbers represented by the red and the blue shapes are?

If you carried this pattern on until you had one hundred shapes, how many shapes would there be in the longest string of blue shapes?