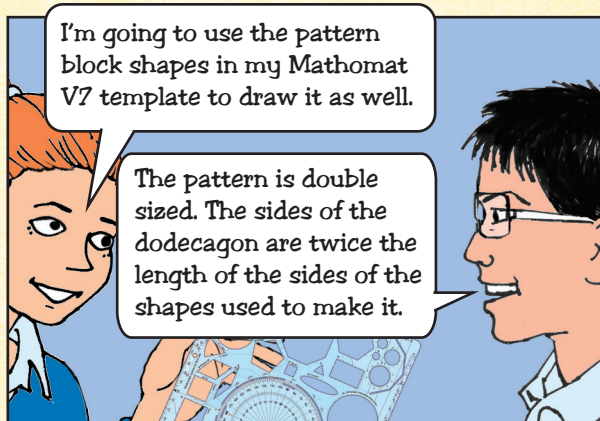
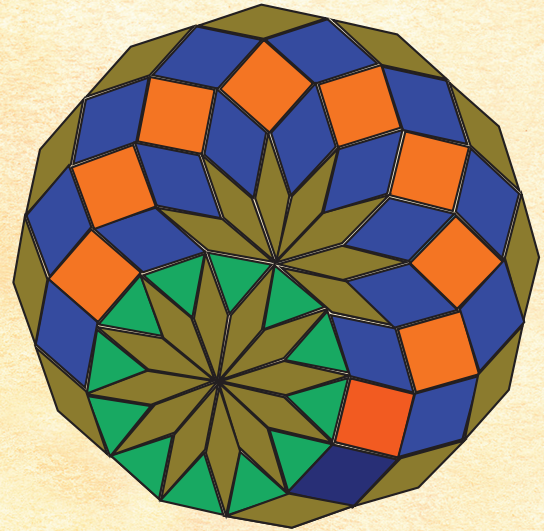
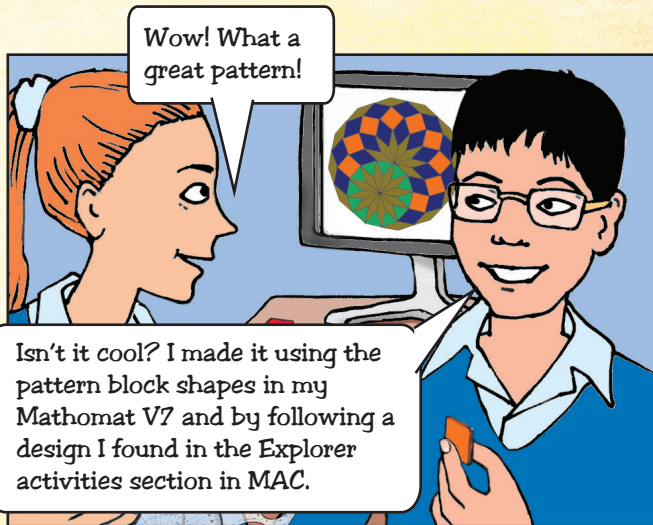
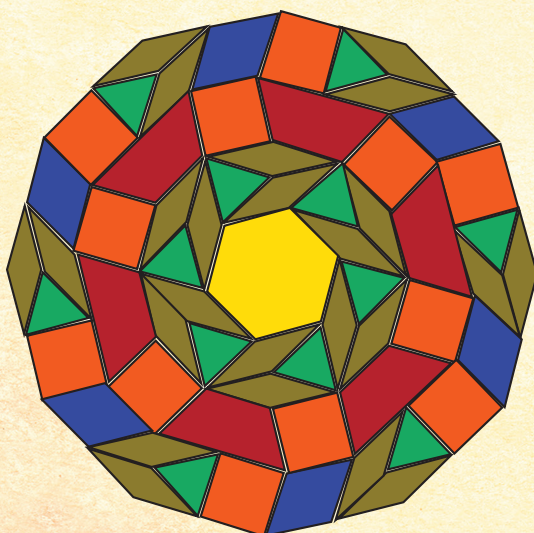


Making double sized dodecagon patterns using the pattern block shapes in Mathomat V7

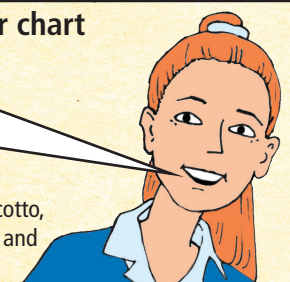


Pattern blocks		Mathomat shape number/size	
in the Mathoblock™ set	shapes in Mathomat	V7	V5
		5 20mm	9 20mm
		22 20mm	21 20mm
		23 20mm	22 20mm
		21 20mm	20 20mm
		31 20/40mm	45 20/40mm
		7 20mm	8 20mm



Pattern block shape selector chart

Have you noticed that blue, green and red shapes are all multiples of the green triangle?



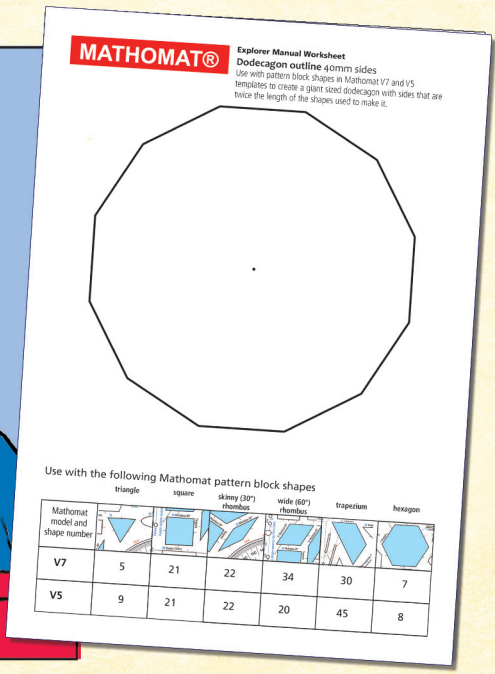
Try drawing these double sized dodecagon patterns using the pattern block shapes from your Mathomat template.

This investigation was inspired by Henri Piccotto, who designed the two patterns shown here and posed the questions being asked.

I'm printing a large dodecagon worksheet, for pattern block designs, from the Explorer section of the Mathomat website. It has sides that are twice the length of a pattern block shape.

Look for smaller dodecagon patterns in the large pattern. Sometimes they overlap.

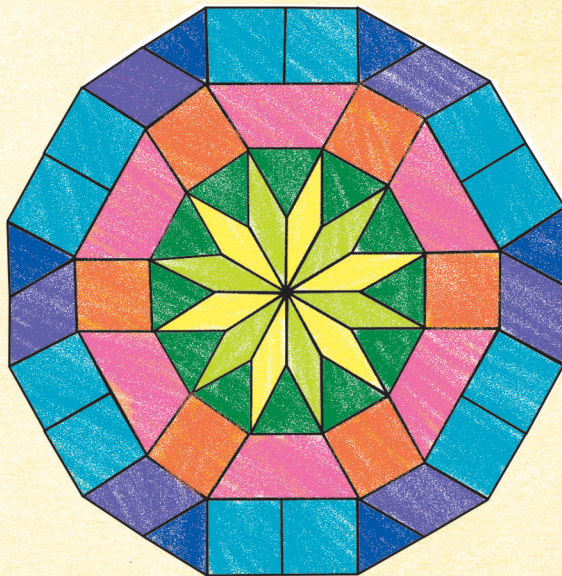
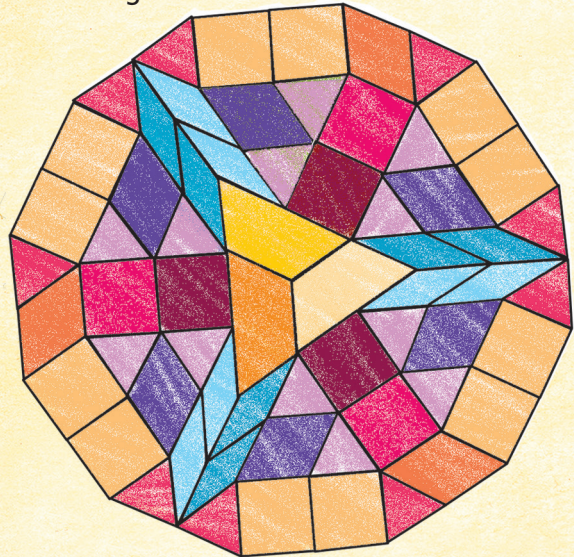
Chad and Mia are planning their own designs to colour in.



The worksheets are really good for designing your own double-sided dodecagon pattern using Mathomat.

Here is my design.

How many of each type of shape are there in my pattern?



What is the area of dodecagon written as the sum of its squares and triangles?



Copy Chad and Mia's double sided designs using your Mathomat template. Then print a worksheet out from MAC, the Explorer section of the Mathomat website. Go to www.mathomatactivitycentre.com.au.