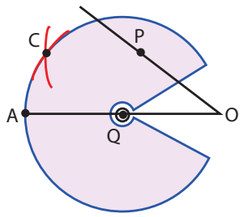
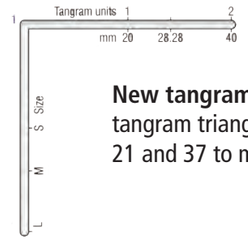
Navigating the Mathomat V7 template

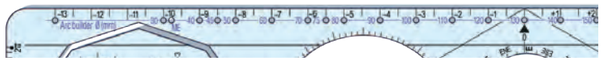
Drawing is a very important activity in school and for problem solving in daily life. Drawing causes us to reflect on our experiences, to learn from them, and to engage in modelling and design.



NEW IN MATHOMAT V7: Professor Tisdell's geometry tool, the TGT. Use with straight edge sides of Mathomat for accurate geometric constructions.



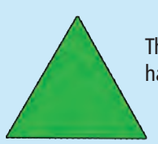
New tangram tool: Use this to draw the three tangram triangles which can be used with shapes 21 and 37 to make tangram puzzles.



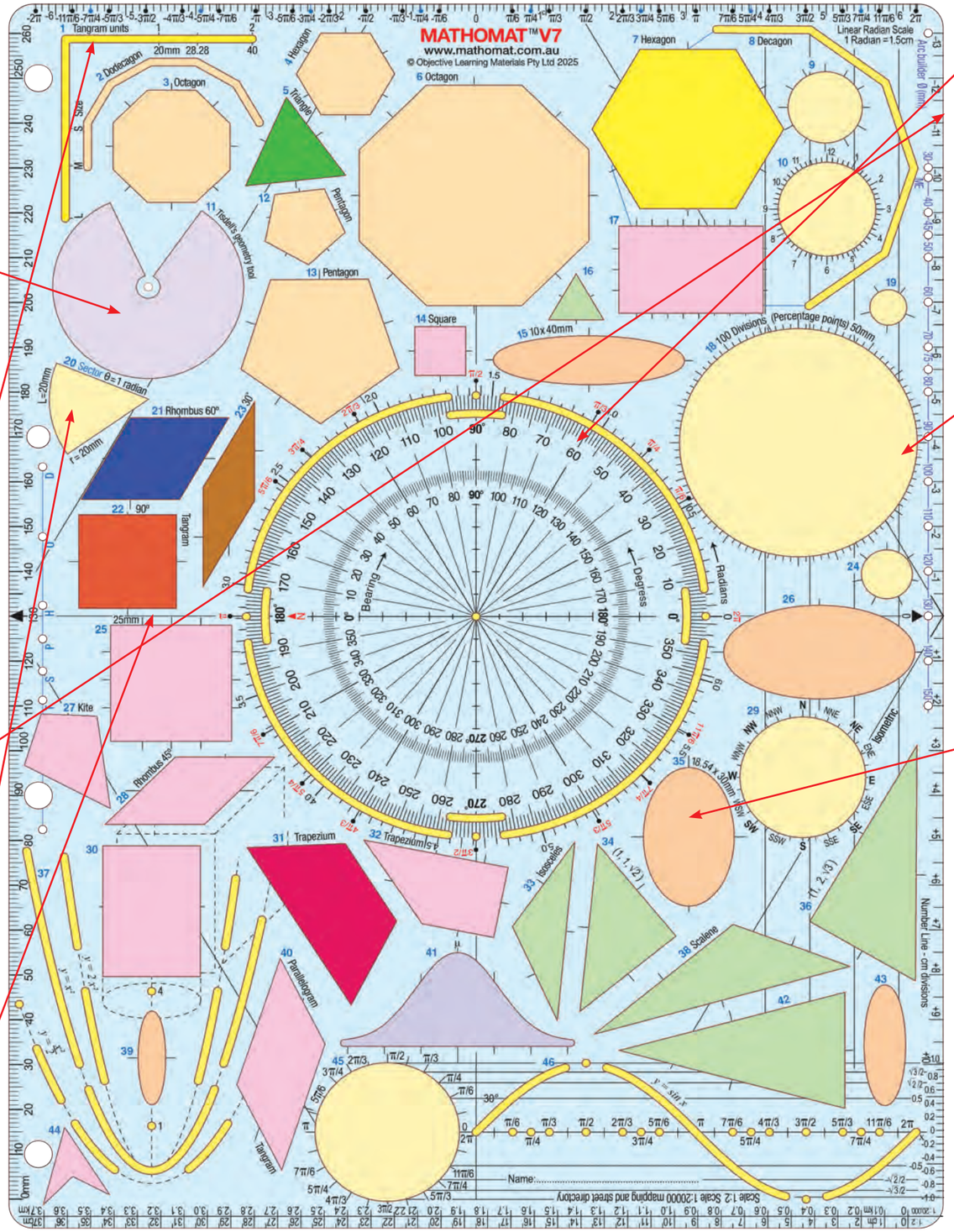
New arc builder scale: This new circle making tool is great for drawing large circles and arcs.

New regular polygon expansion scale: Use this new tool to expand regular polygons in Mathomat so they have giant 50mm sides.

New: Mathomat V7 now has a full set of pattern block shapes. Great for redrawing designs made with Mathoblocks™.



The Mathomat V7 pattern block shapes have big 20mm sides.



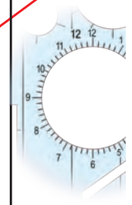
Like all Mathomat templates the V7 has a rich collection of number lines, among them are:

Number line in centimetres
Scale rulers, 1:2 and 1:20,000
Millimetres, Linear radian scale

The protractor

The protractor measures angle in degrees and radians. Degrees are measured clockwise on the outer scale, anticlockwise on the inner bearing scale. Radians on the outside of the protractor are divided into 10ths and fractions of pi.

Mathomat circles



Shape number	Diameter	Fractions of a complete revolution represented
19	7mm	fifths
24	10mm	sevenths
9	15mm	twelfths
10	20mm	clock face 60ths
18	50mm	percentages 100ths
29	26mm	compass rose
45	30mm	unit circle

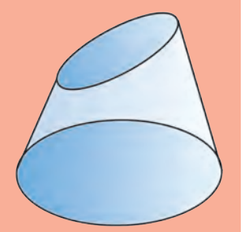
Binder holes in template are 5mm diameter
Shape 11, TGT, draws a 40mm diameter circle

The Mathomat V7 has a great range of circles. These can be use for accurate geometric constructions as well as offering many different ways to scale a full rotation.

Mathomat ellipses

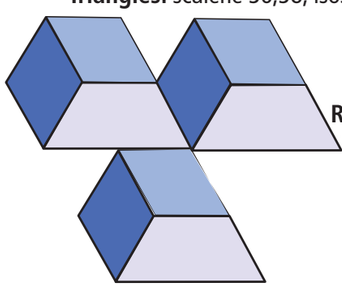
Ellipses are an essential tool for creative drawing.

Shape	Minor axis	Major axis
15	10mm	40mm
35	18.54mm	30mm
26	20mm	40mm
43	8mm	26mm
39	5mm	20mm



Polygons for 2-D and 3-D patterns and designs

Triangles: scalene 36,38, isosceles 33,34, equilateral 16,5
Squares: shapes14, 22, 25
Non square rectangles, shapes 17,30
Rhombuses, shapes 21,23,28
Trapeziums, shapes 31 & 32
Parallelogram, shape 40
Kite, shape 27
Arrowhead, shape 44
Pentagons. shapes 12 & 13
hexagons, shapes 4 & 7
Octagons shapes 3 & 6



This design was made with trapezium (shape 31) and rhombus (shape 28)