Shapes Same Area

1. Tony has created a shape using rectangles, but has hidden the design of it.

He says,

> It is a compound shape that is made up of more than 2 rectangles.
>
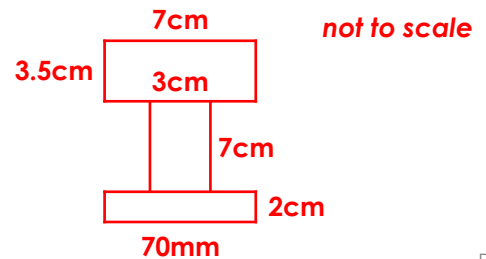> One of the rectangles has a width of 3.5cm.
>
> One of the rectangles has a length between 50mm and 135mm, which is also a whole number in cm.
>
> The shape has total area greater than 50cm^2, but less than 100cm^2.

Investigate what his shape could look like. Explore different possibilities.

Various answers, for example: as shown below.
The total area for the shape shown is 59.5cm^2.

not to scale

7cm
3.5cm
3cm
7cm
2cm
70mm

DP

2. Below are a selection of different measurements.

12cm	8cm	90mm	45mm	12cm	1.5cm

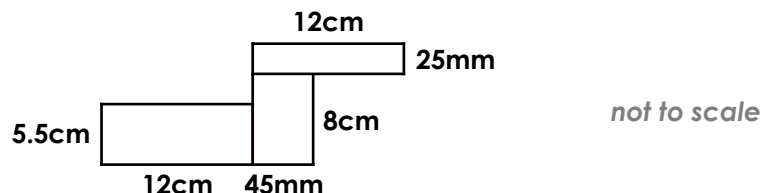| 25mm	50mm	3cm	11cm	35mm	5.5cm

Use the different measurements as widths and lengths to create compound shapes that have at least 6 sides. Each measurement can be used more than once.

An example is shown below.

12cm
25mm
8cm
5.5cm
12cm   45mm

not to scale

Investigate the possible total area that your shapes produce.

Various answers, for example: for the shape shown above, the total area is 132cm^2.

DP