

Area Investigations

Area and Perimeter:

Part A)

- 1) Sketch as many rectangles as you can which have an area of 64cm^2 .
- 2) For each of the above rectangles, find the perimeter in cm
- 3) Display your results in a table

Part B)

- 4) Try to sketch as many rectangles as you can where the area equals the perimeter
- 5) Do you observe any patterns in your results?

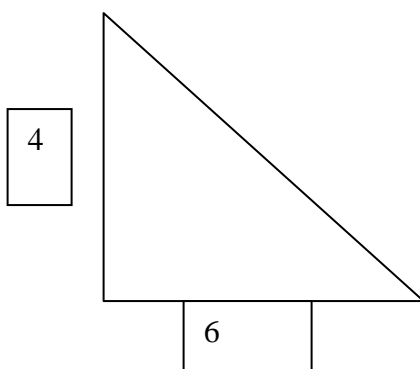
Non-integer variables

- 1) Sketch at least 5 rectangles which have an area of 1.5cm^2
- 2) Sketch at least 5 rectangles which has got one side which is a decimal, yet the area is an integer

Triangles and rectangles:

- 1) Sketch 5 triangles which have got an area of 20cm^2
- 2) Is it possible to find the accurate perimeter of these? If not, why not?
- 3) Suppose I have a rectangle which has got a perimeter of 20cm and one side equals 8 . Sketch at least 5 triangles whose area is twice the size of this rectangle

Extension on triangles



Trick to find the missing side:

$$\text{Do } 4 \times 4 = 16$$

$$6 \times 6 = 36$$

$$\text{Add these together } 16 + 36 = 52$$

$$\text{Find } \sqrt{52} =$$

$$\text{So perimeter} = 4 + 6 + ?$$

Make up some right angled triangles which have got an area of 40cm^2 . Find their perimeters.