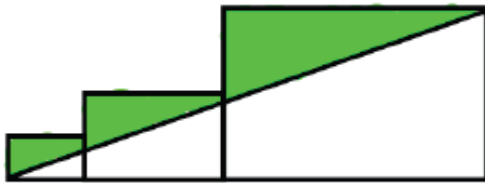


January 1st

The first rectangle has a width of 2cm and length of 4cm.
The second rectangle has a width of 4cm and length of 8cm.
The third rectangle has a width of 8cm and length of 16cm.

A straight line joins the bottom left corner to the top right corner.

Find the area of the shaded region.



The total area of the whole shape is

$$2 \times 4 + 4 \times 8 + 8 \times 16 = 168 \text{cm}^2$$

The white triangle has

$$\text{Base} = 16 + 8 + 4 = 28 \text{cm}$$

$$\text{Height} = 8 \text{cm}$$

So area of white triangle is

$$\frac{1}{2} \times 28 \times 8 = 112 \text{cm}^2$$

So shaded area = $168 - 112 =$

56cm²