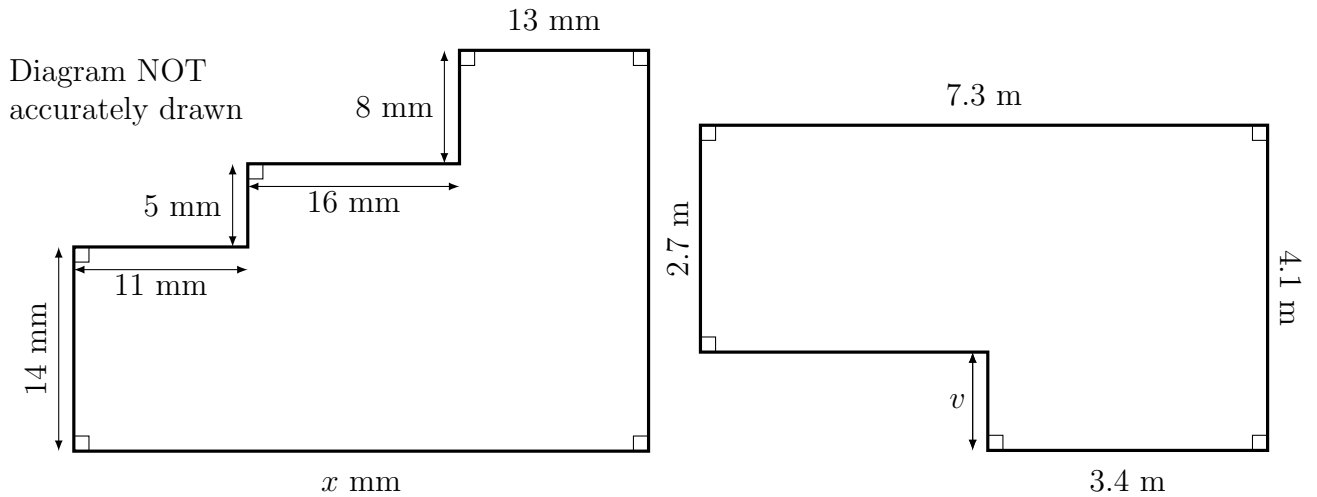


1. Here is a diagram of a model celebration cake.



(i) Work out the length  $x$

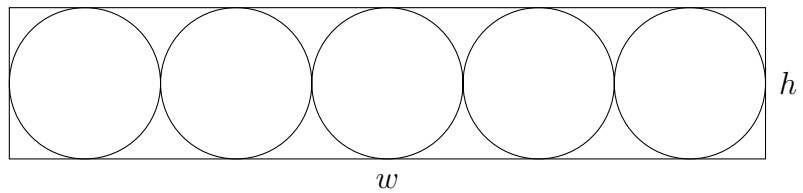
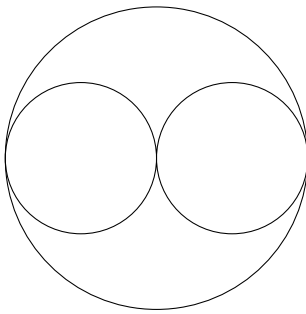
(ii) Work out the length  $v$

2. (a) Here is a diagram of 3 circles.

(b) Here is a diagram of 5 identical circles.

Two of the circles are the same size.

The width,  $w$ , is 250 cm



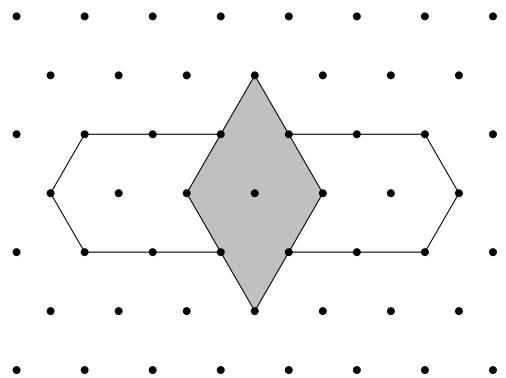
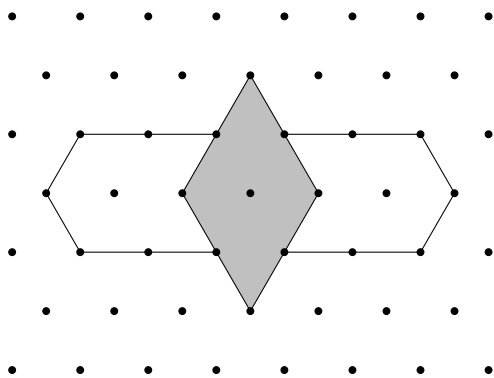
The diameter of the large circle is 200 mm

(a) Work out the size of the radius of the small circles.

(b) Work out the height,  $h$ ,

3. Here are two similar patterns.

Each pattern is made up of a shaded rhombus and 2 hexagons.



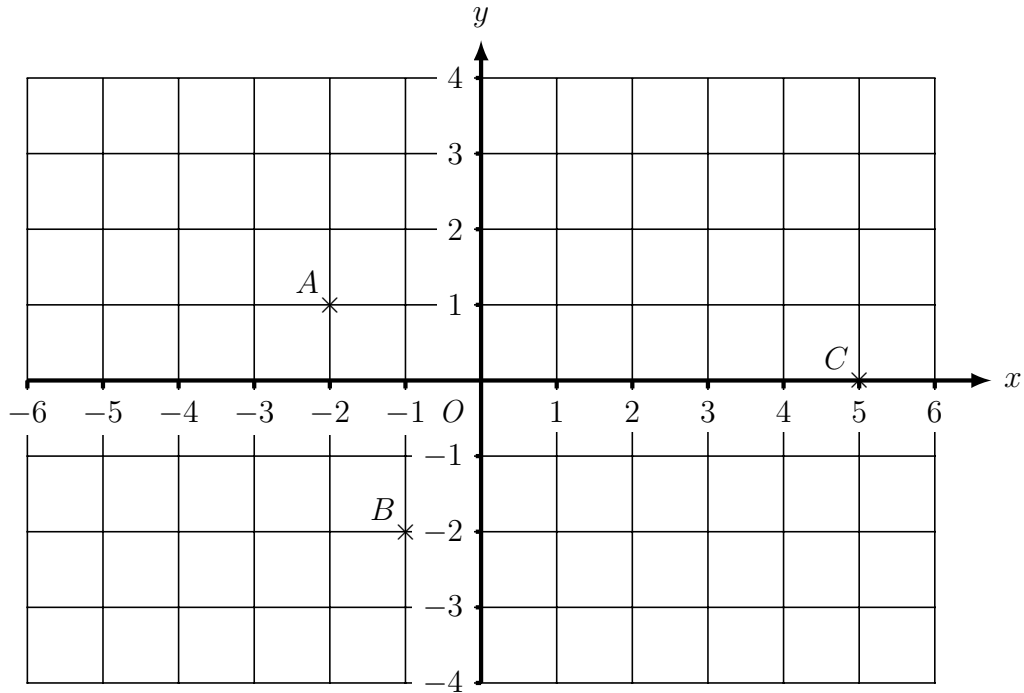
(a) The area of the whole pattern is  $24 \text{ cm}^2$ .

(b) The area of the each hexagon is  $24 \text{ cm}^2$ .

Work out the area of the shaded rhombus.

Work out the area of the shaded rhombus.

4. Here is a coordinate grid.



On the grid, mark with a cross (×) the point D so that ABCD is a rectangle.  
Label this point D.

5. 5. not written yet

6. 6. not written yet

7. 7. not written yet

8. On the centimetre grid, draw a **rectangle** with an area of  $35 \text{ cm}^2$

