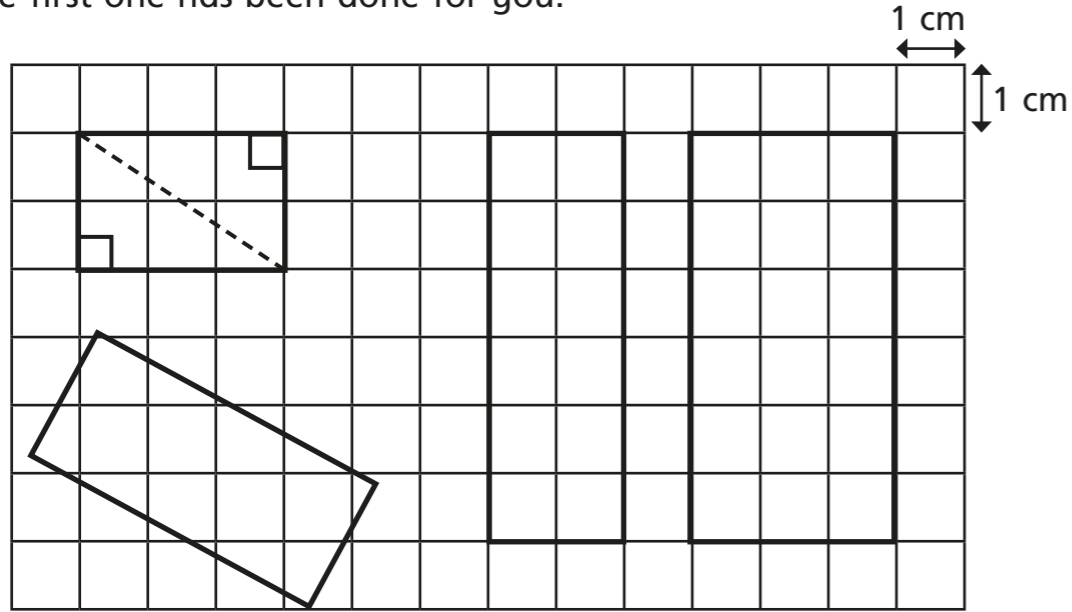
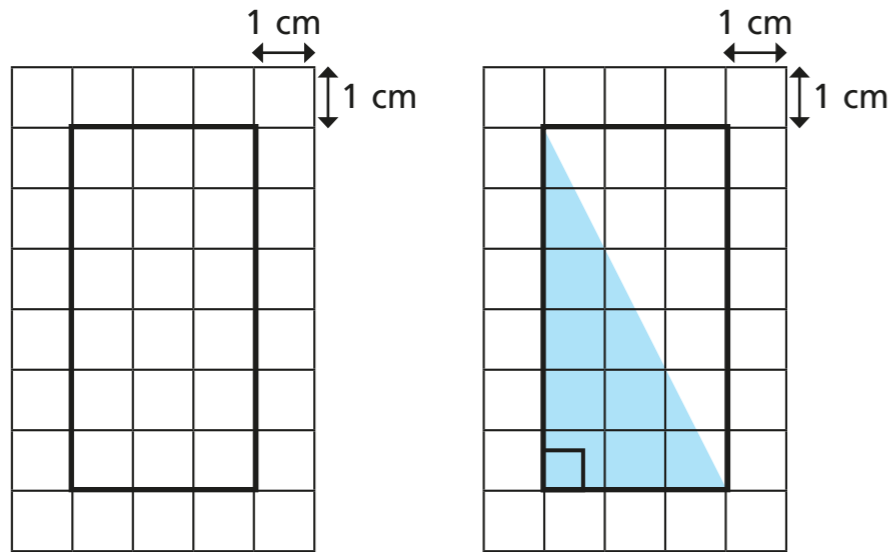


# Area of a triangle (2)

- 1 Divide each rectangle into two right-angled triangles. The first one has been done for you.



- 2 a) Calculate the area of the rectangle and the triangle.

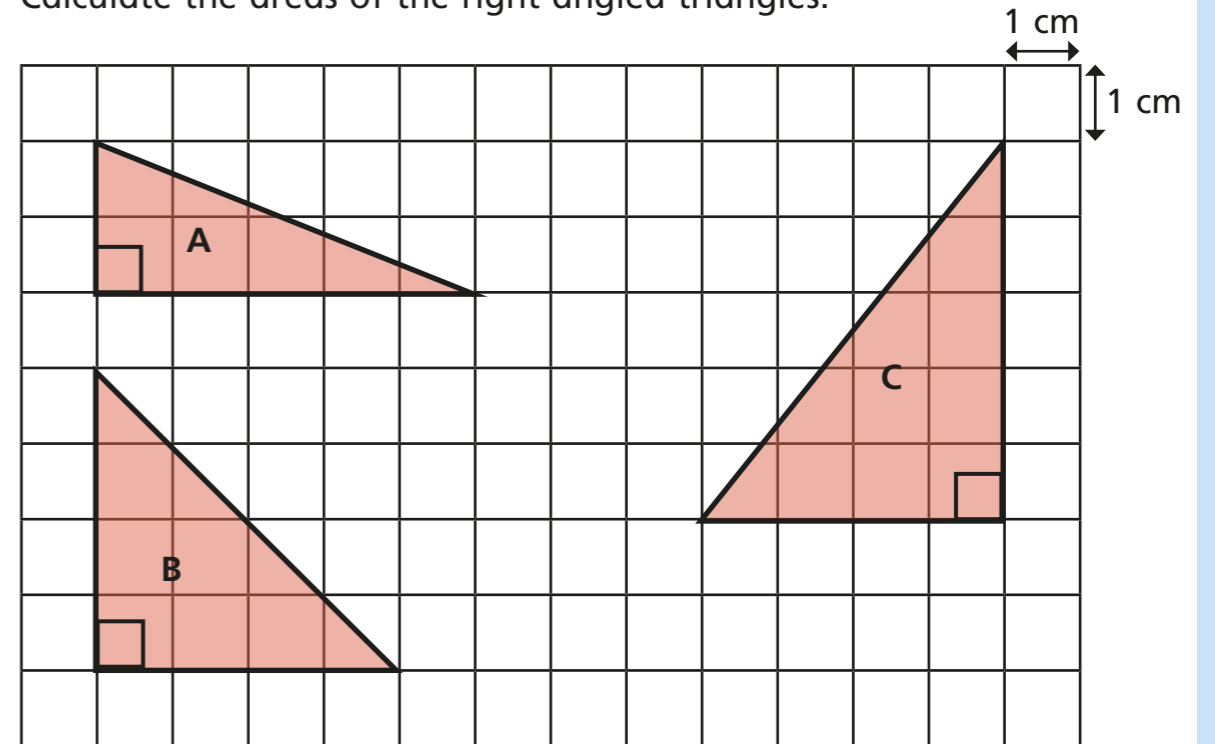


area =  cm<sup>2</sup>

area =  cm<sup>2</sup>

- b) Explain how you worked out the area of the right-angled triangle.

- 3 Calculate the areas of the right-angled triangles.

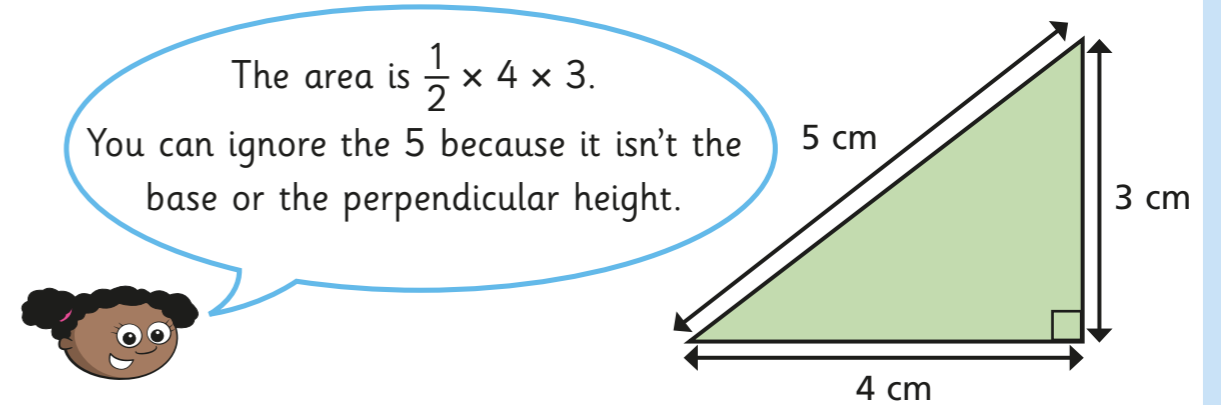


triangle A =  cm<sup>2</sup>      triangle C =  cm<sup>2</sup>

triangle B =  cm<sup>2</sup>

- 4 Whitney is calculating the area of the triangle using the formula.

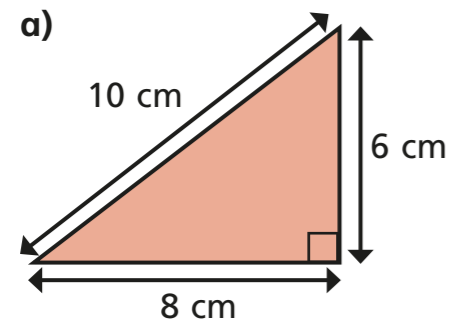
$$\text{Area} = \frac{1}{2} \times \text{base} \times \text{perpendicular height}$$



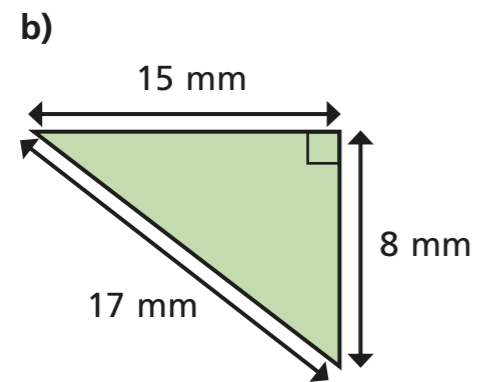
Do you agree with Whitney? \_\_\_\_\_

Talk about it with a partner.

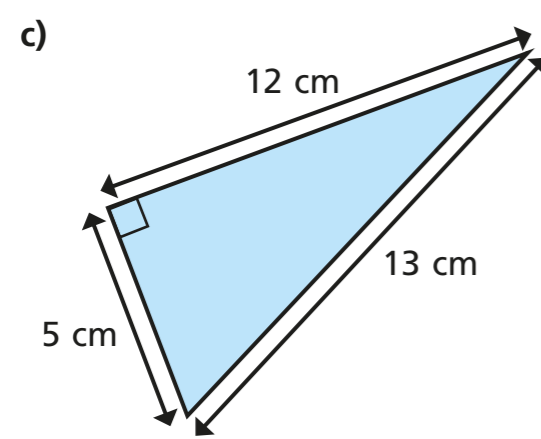
5 Insert the correct numbers into the formula to calculate the area of the triangle.



$$\frac{1}{2} \times \square \times \square = \square \text{ cm}^2$$

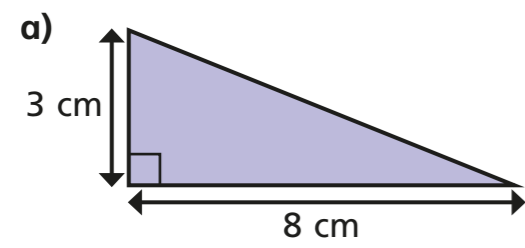


$$\frac{1}{2} \times \square \times \square = \square \text{ mm}^2$$

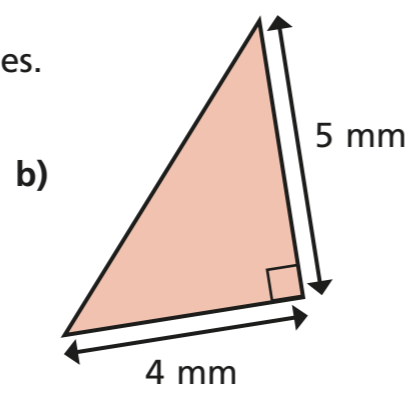


$$\frac{1}{2} \times \square \times \square = \square \text{ cm}^2$$

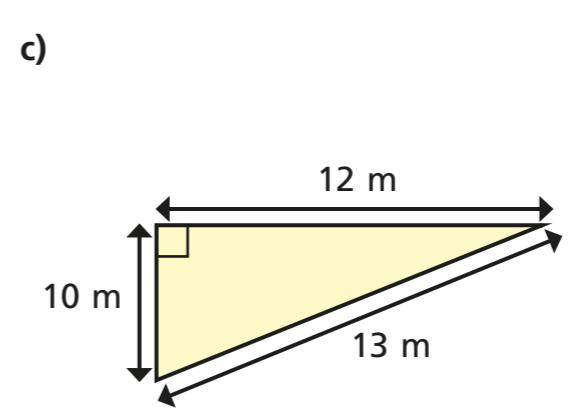
6 Calculate the areas of the triangles.



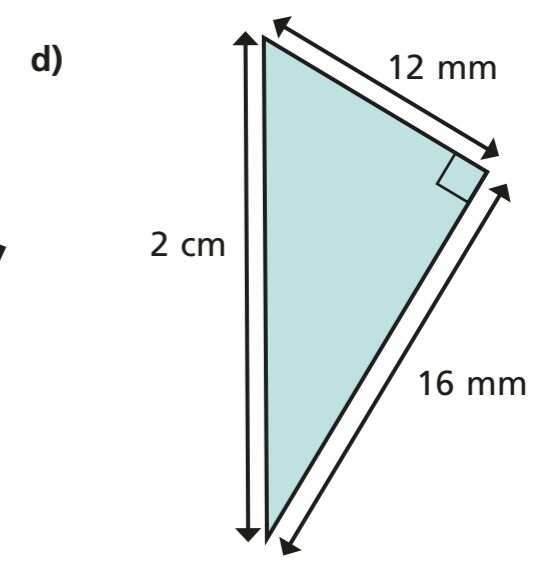
area =  cm<sup>2</sup>



area =  mm<sup>2</sup>

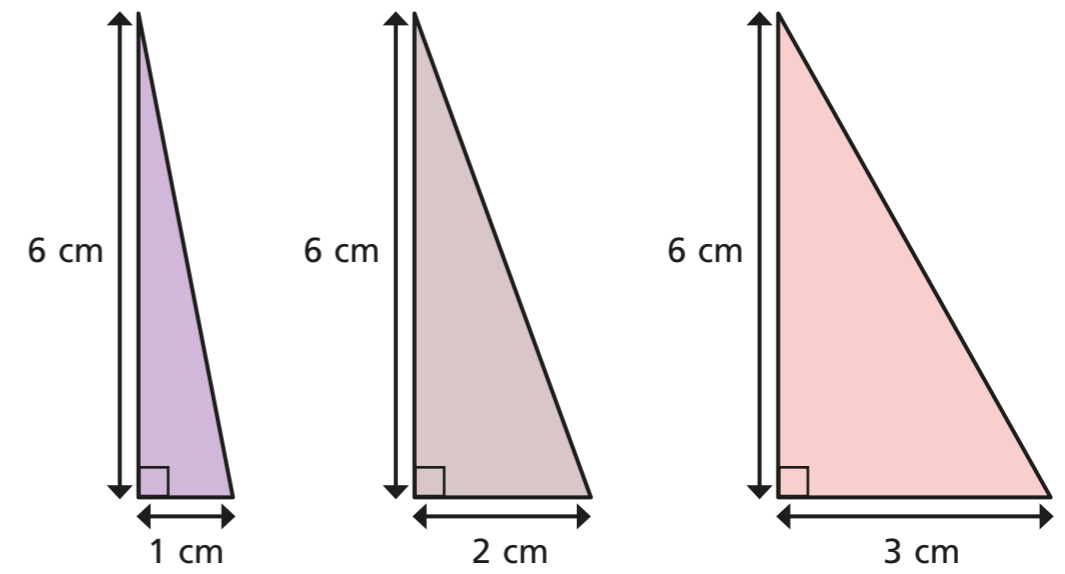


area =  m<sup>2</sup>



area =  mm<sup>2</sup>

7 The width of the right-angled triangles is increasing by 1 cm.



Investigate the pattern for the areas.

What happens to the pattern if the length **and** width increase?

