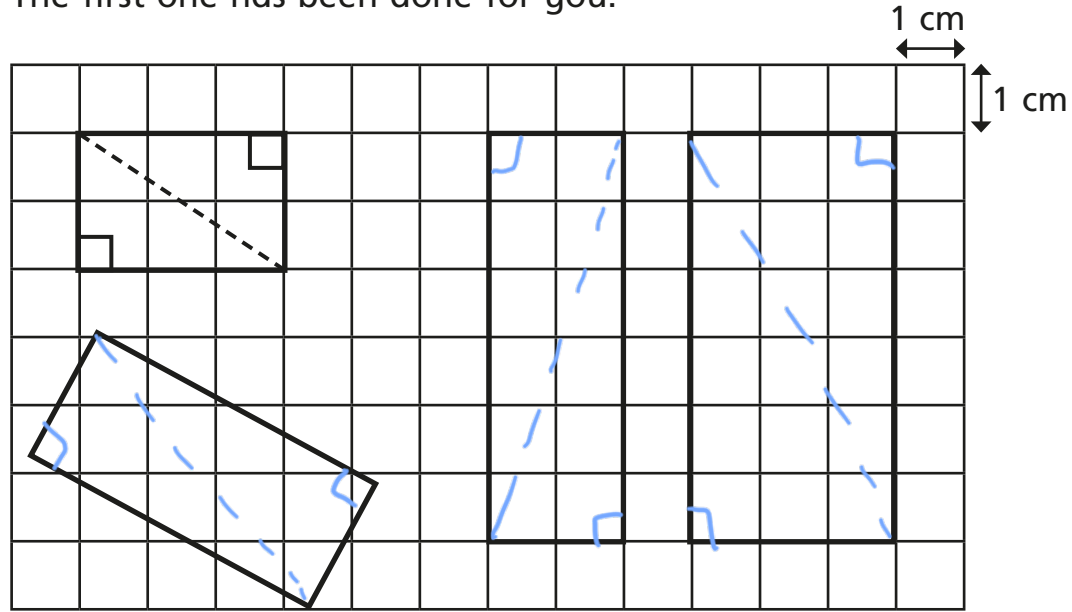
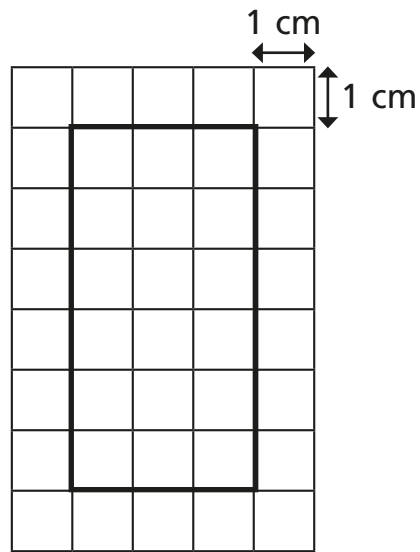


Area of a triangle (2)

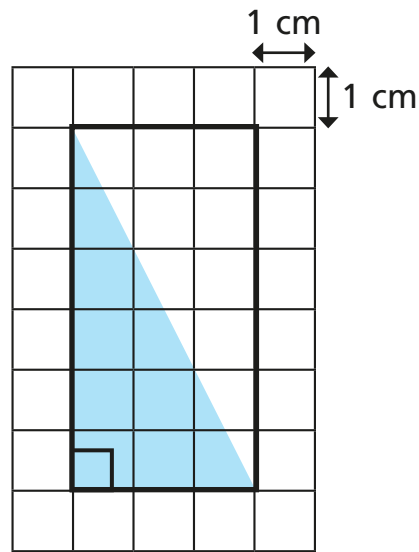
- 1 a) Divide each rectangle into two right-angled triangles. The first one has been done for you.



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



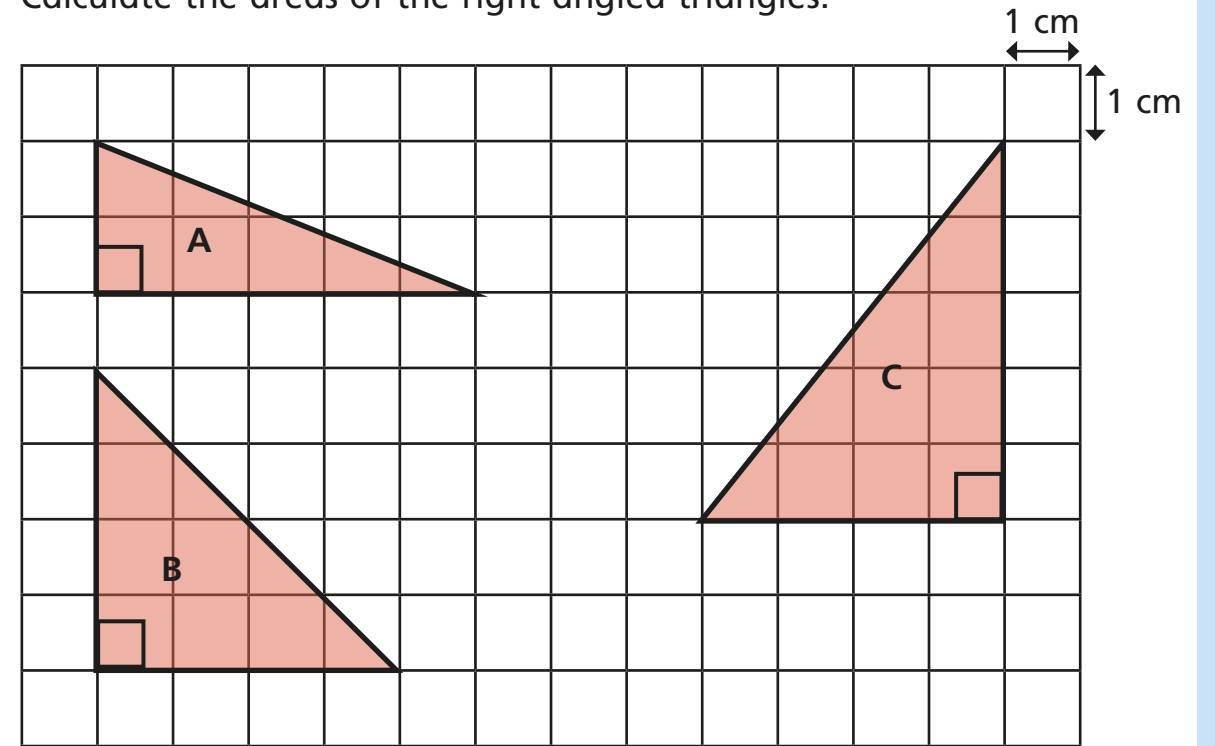
area = cm²



area = cm²

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

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

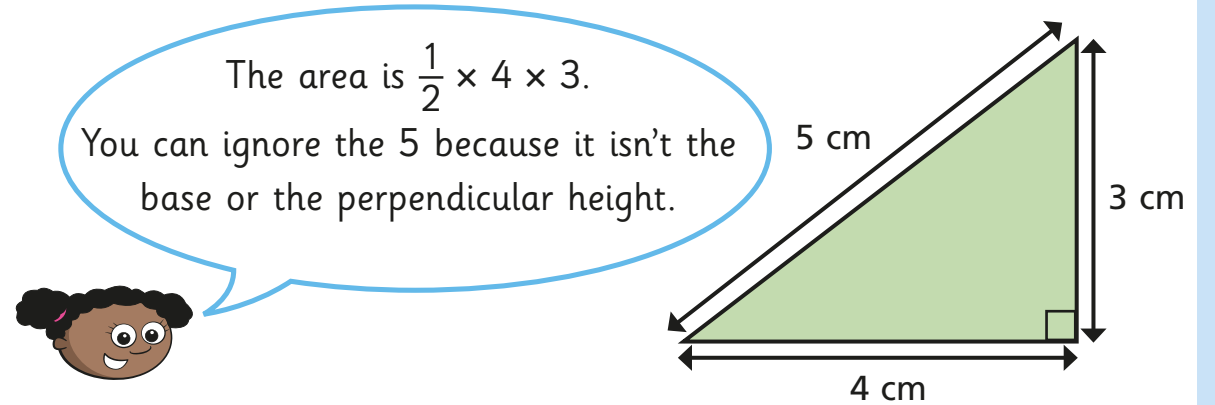


triangle A = cm² triangle C = cm²

triangle B = cm²

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

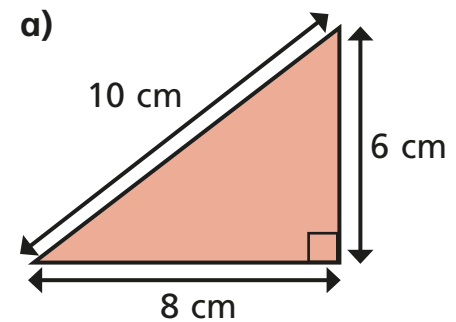
Area = $\frac{1}{2} \times \text{base} \times \text{perpendicular height}$



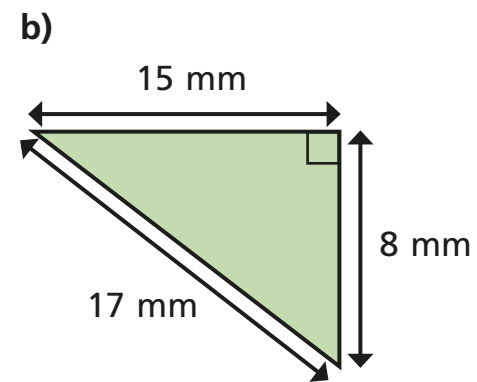
Do you agree with Whitney? yes

Talk about it with a partner.

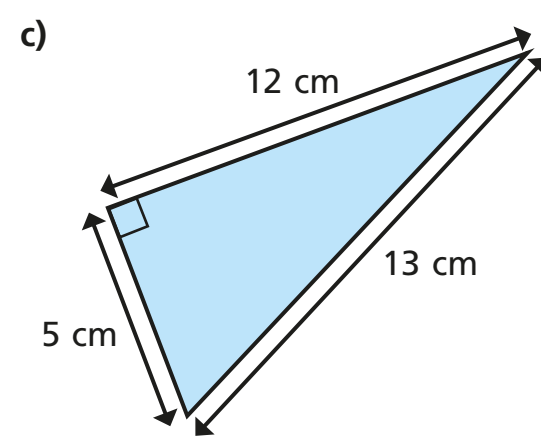
5 Insert the correct numbers into the formula to calculate the area of the triangle.



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

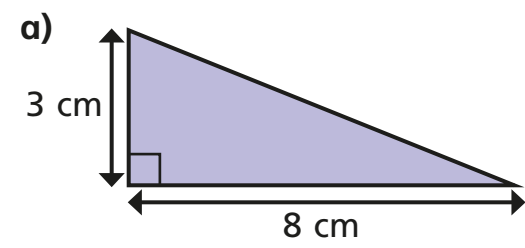


$$\frac{1}{2} \times \square \times \square = \square \text{ mm}^2$$

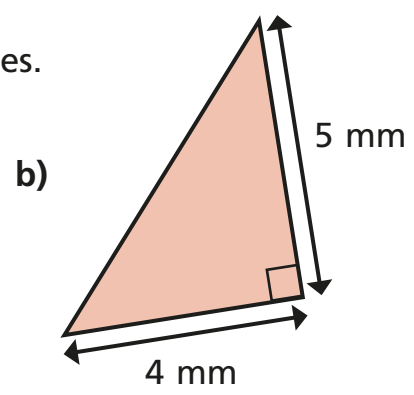


$$\frac{1}{2} \times \square \times \square = \square \text{ cm}^2$$

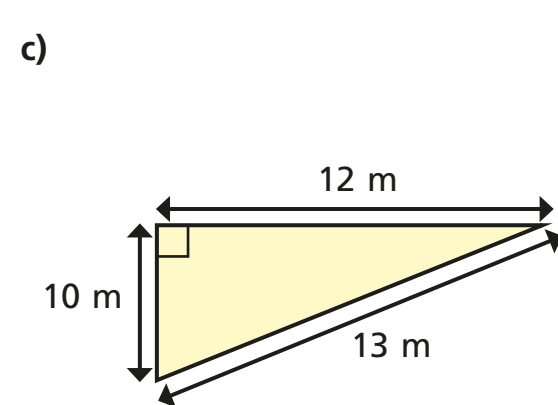
6 Calculate the areas of the triangles.



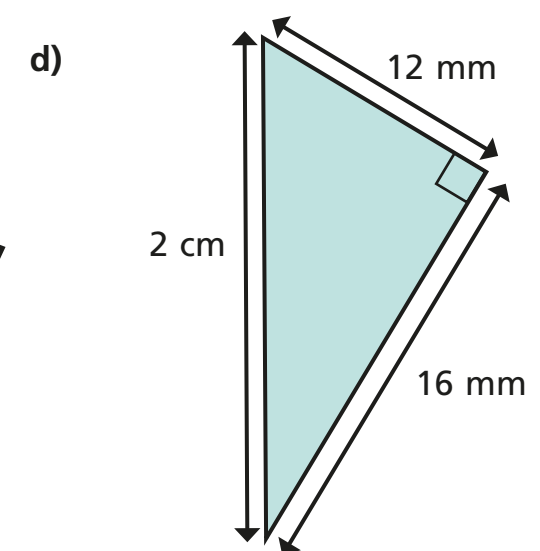
area = cm²



area = mm²

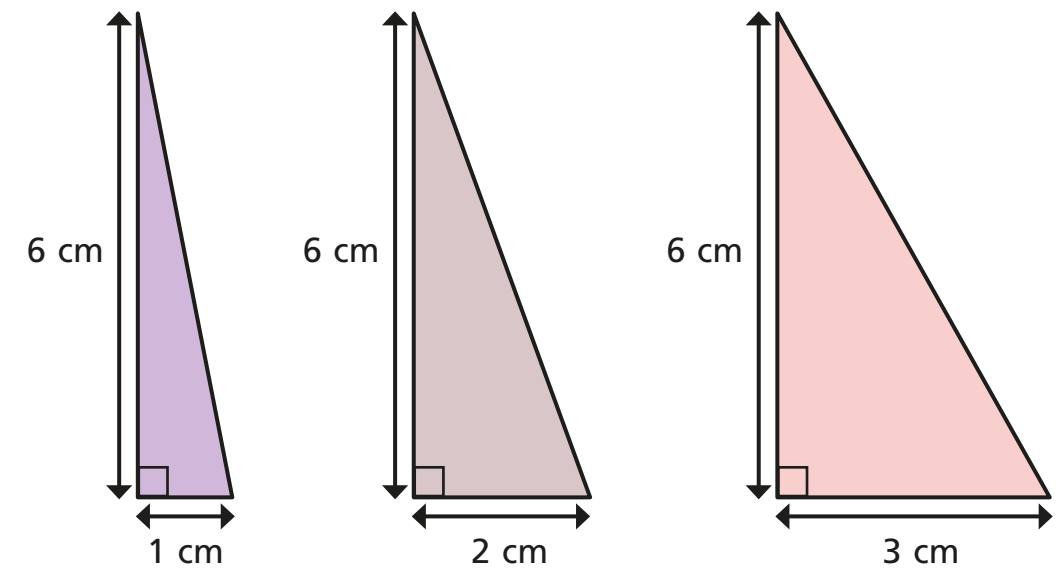


area = m²



area = mm²

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?