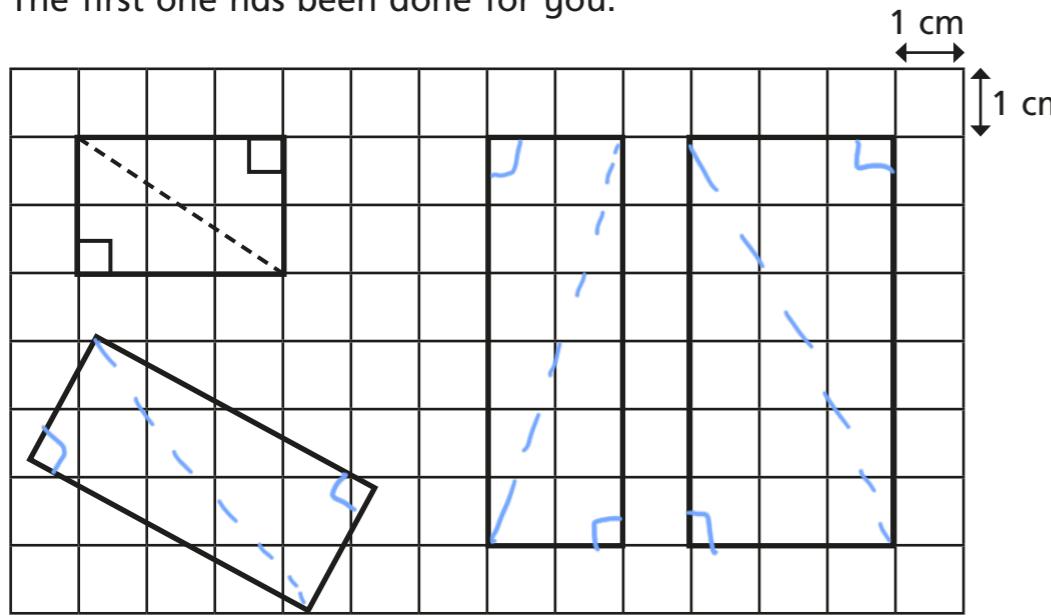
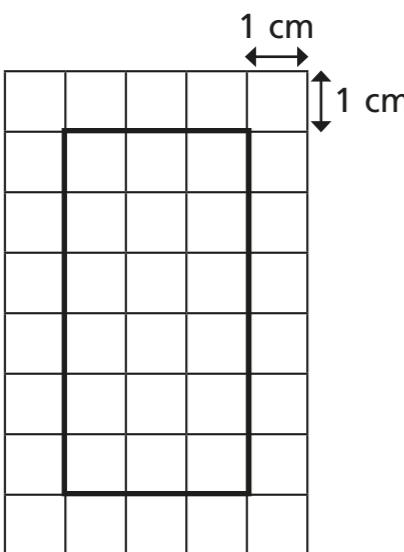


Area of a triangle (2)

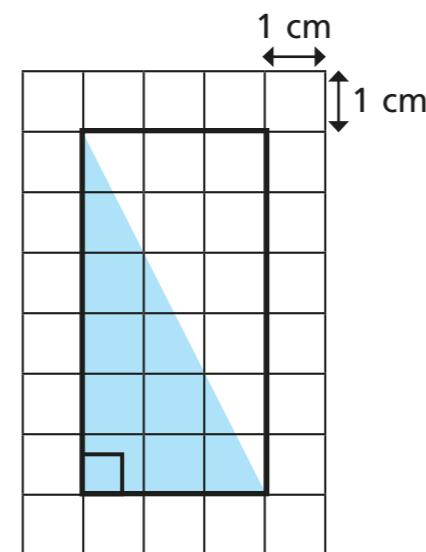
- 1** a) Divide each rectangle into two right-angled triangles.
The first one has been done for you.



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



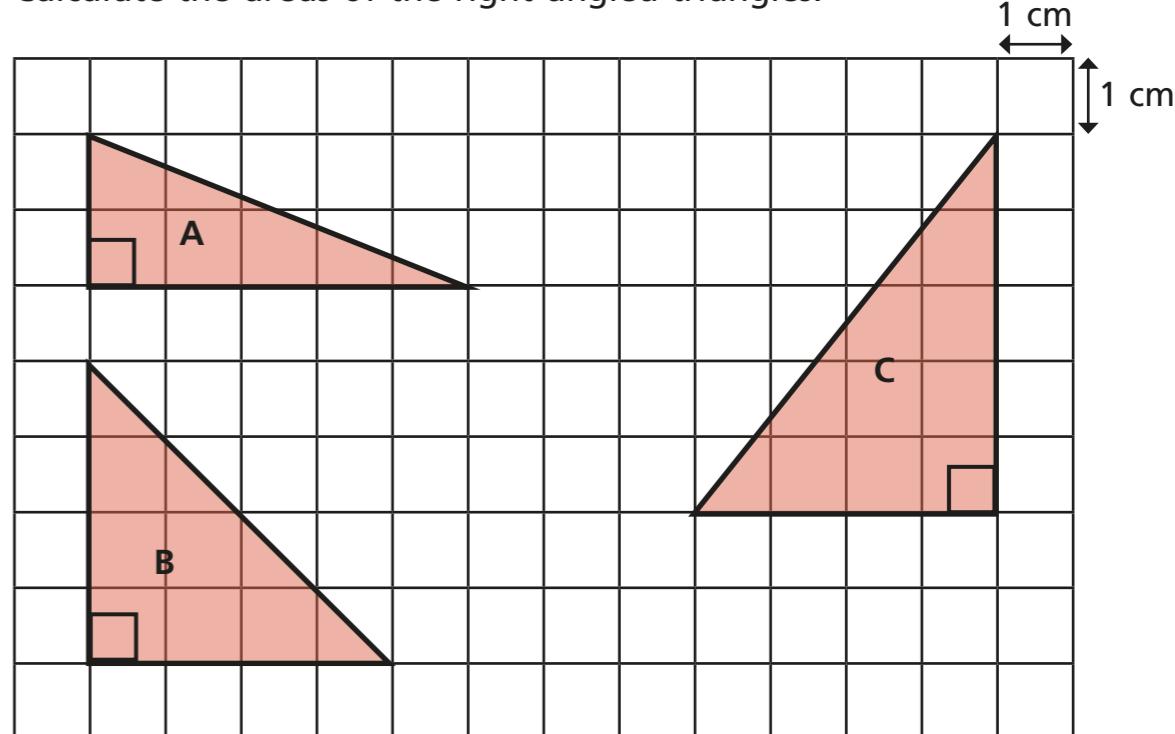
$$\text{area} = 18 \text{ cm}^2$$



$$\text{area} = 9 \text{ cm}^2$$

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

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

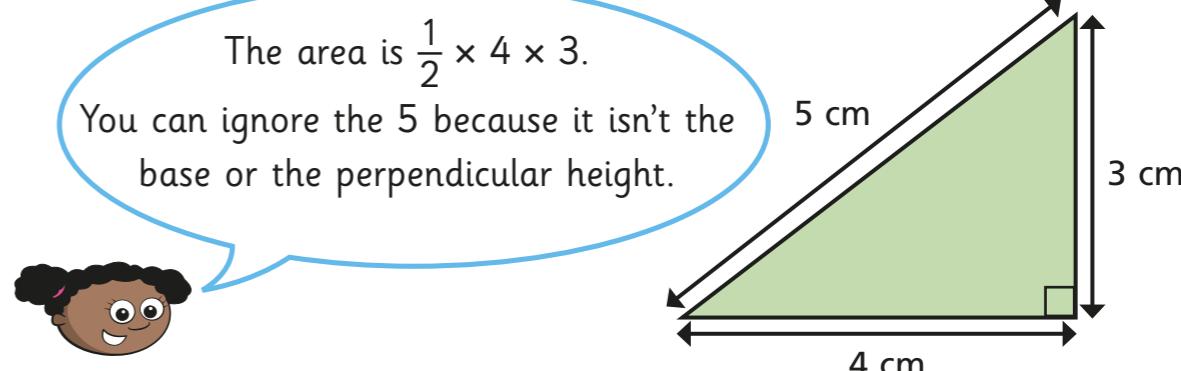


$$\text{triangle } A = 5 \text{ cm}^2 \quad \text{triangle } C = 10 \text{ cm}^2$$

$$\text{triangle } B = 8 \text{ cm}^2$$

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

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



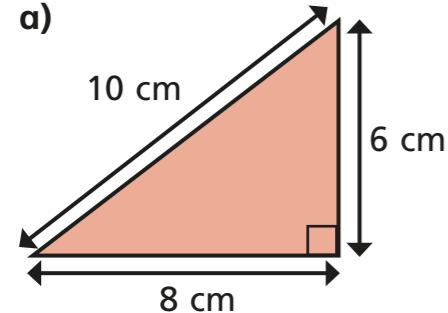
Do you agree with Whitney? Yes

Talk about it with a partner.

5

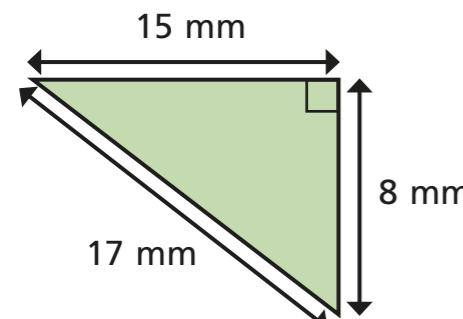
Insert the correct numbers into the formula to calculate the area of the triangle.

a)



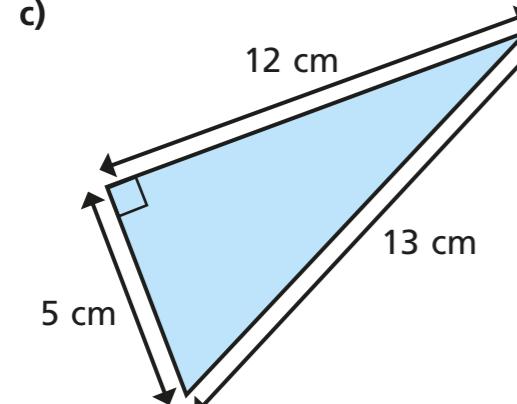
$$\frac{1}{2} \times [6] \times [8] = [24] \text{ cm}^2$$

b)



$$\frac{1}{2} \times [8] \times [15] = [60] \text{ mm}^2$$

c)

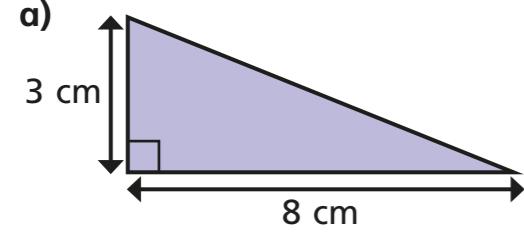


$$\frac{1}{2} \times [12] \times [5] = [30] \text{ cm}^2$$

6

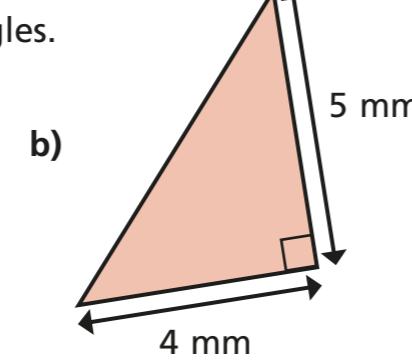
Calculate the areas of the triangles.

a)



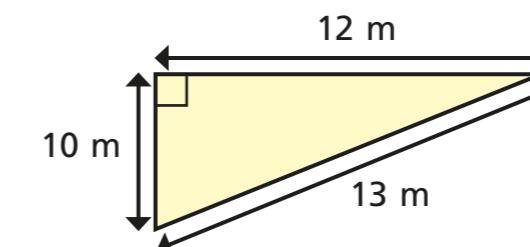
$$\text{area} = [12] \text{ cm}^2$$

b)



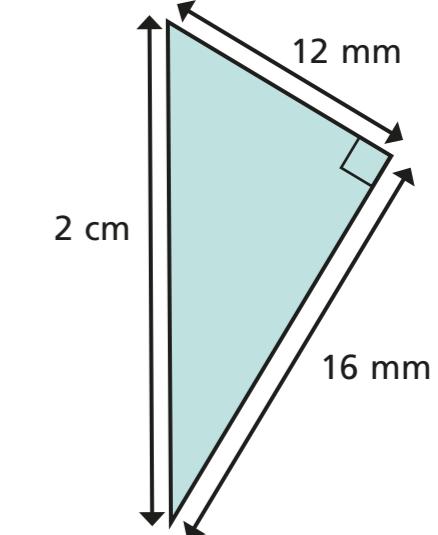
$$\text{area} = [10] \text{ mm}^2$$

c)



$$\text{area} = [60] \text{ m}^2$$

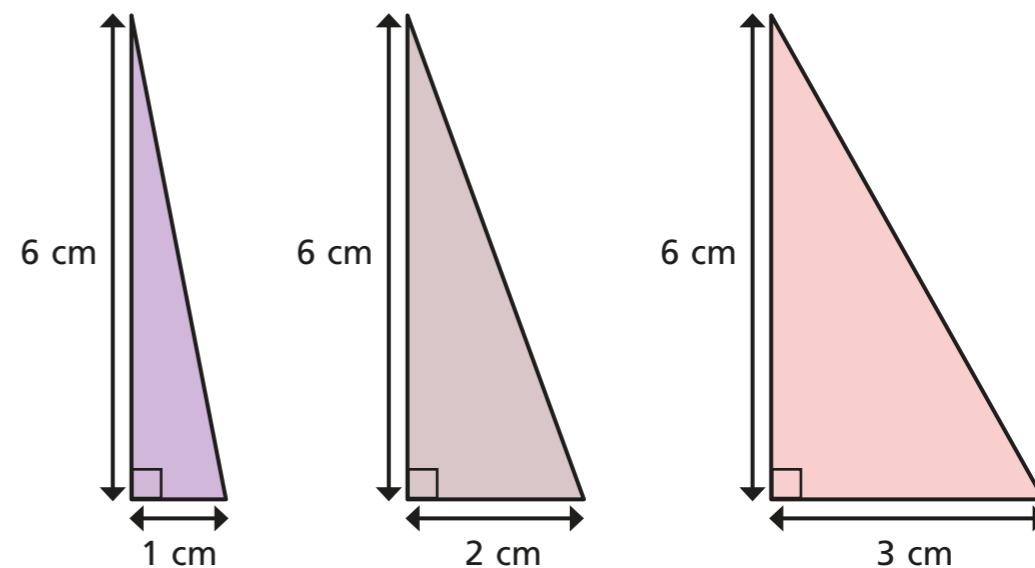
d)



$$\text{area} = [96] \text{ mm}^2$$

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?

