

# Area and perimeter

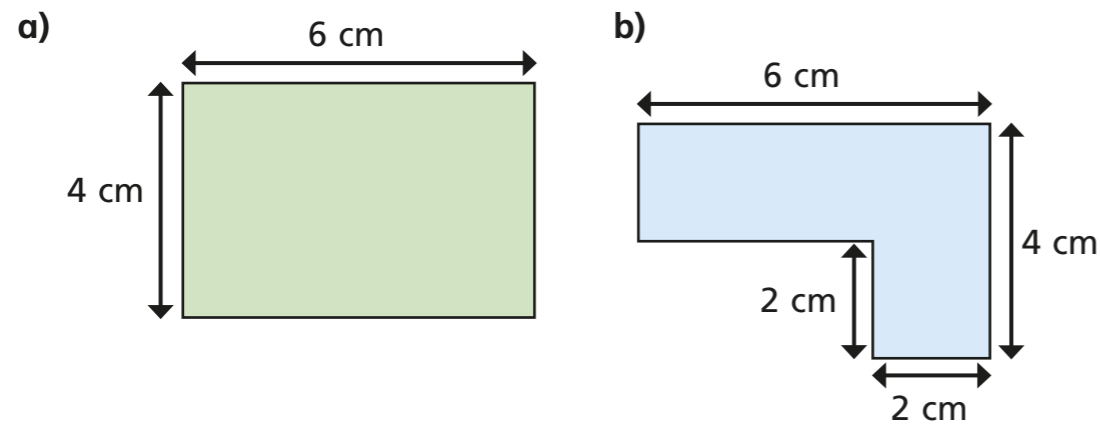
1 Use the words to complete the sentences.

- perimeter    $\text{cm}^2$    cm   m  
area    $\text{m}^2$    inside   around

Area is the amount of space inside a two-dimensional shape. It can be measured in units such as  $\text{cm}^2$  or  $\text{m}^2$ .

Perimeter is the distance around a two-dimensional shape. It can be measured in units such as cm or m.

2 Work out the areas and perimeters of the shapes.



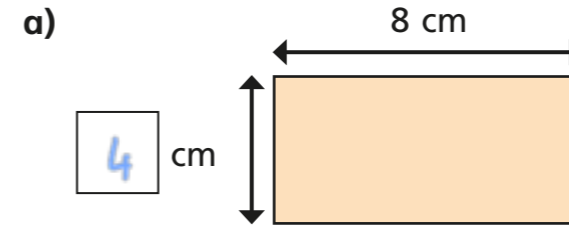
perimeter =  cm

area =   $\text{cm}^2$

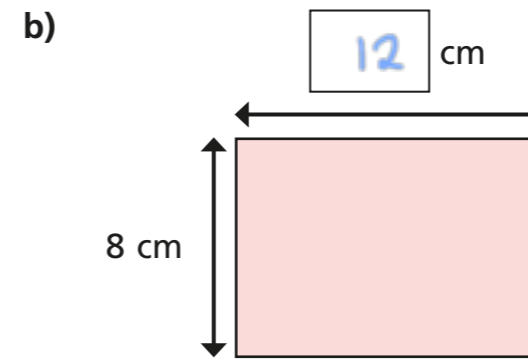
perimeter =  cm

area =   $\text{cm}^2$

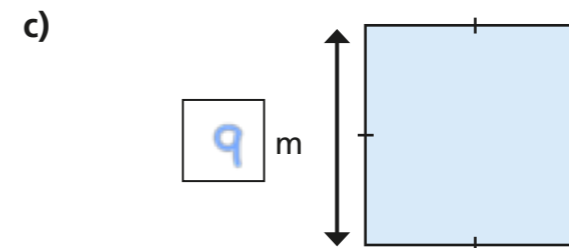
3 Work out the missing values.



area =  $32 \text{ cm}^2$   
perimeter =  cm



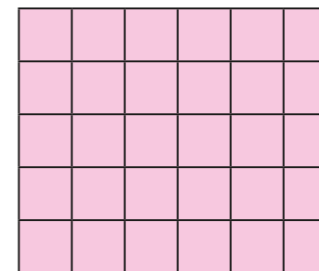
area =   $\text{cm}^2$   
perimeter =  $40 \text{ cm}$



area =   $\text{m}^2$   
perimeter =  $36 \text{ m}$

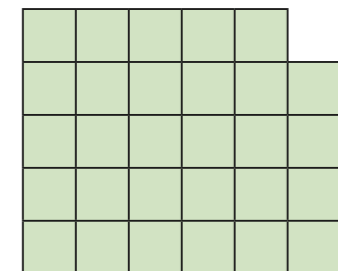
4 Work out the areas and perimeters of the shapes.

Shape A



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

Shape B

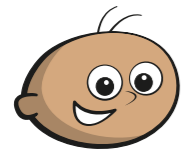


area =   $\text{cm}^2$   
perimeter =  cm

What do you notice?



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Tommy

If you start with a rectilinear shape, when you increase the area, the perimeter will increase.

Amir

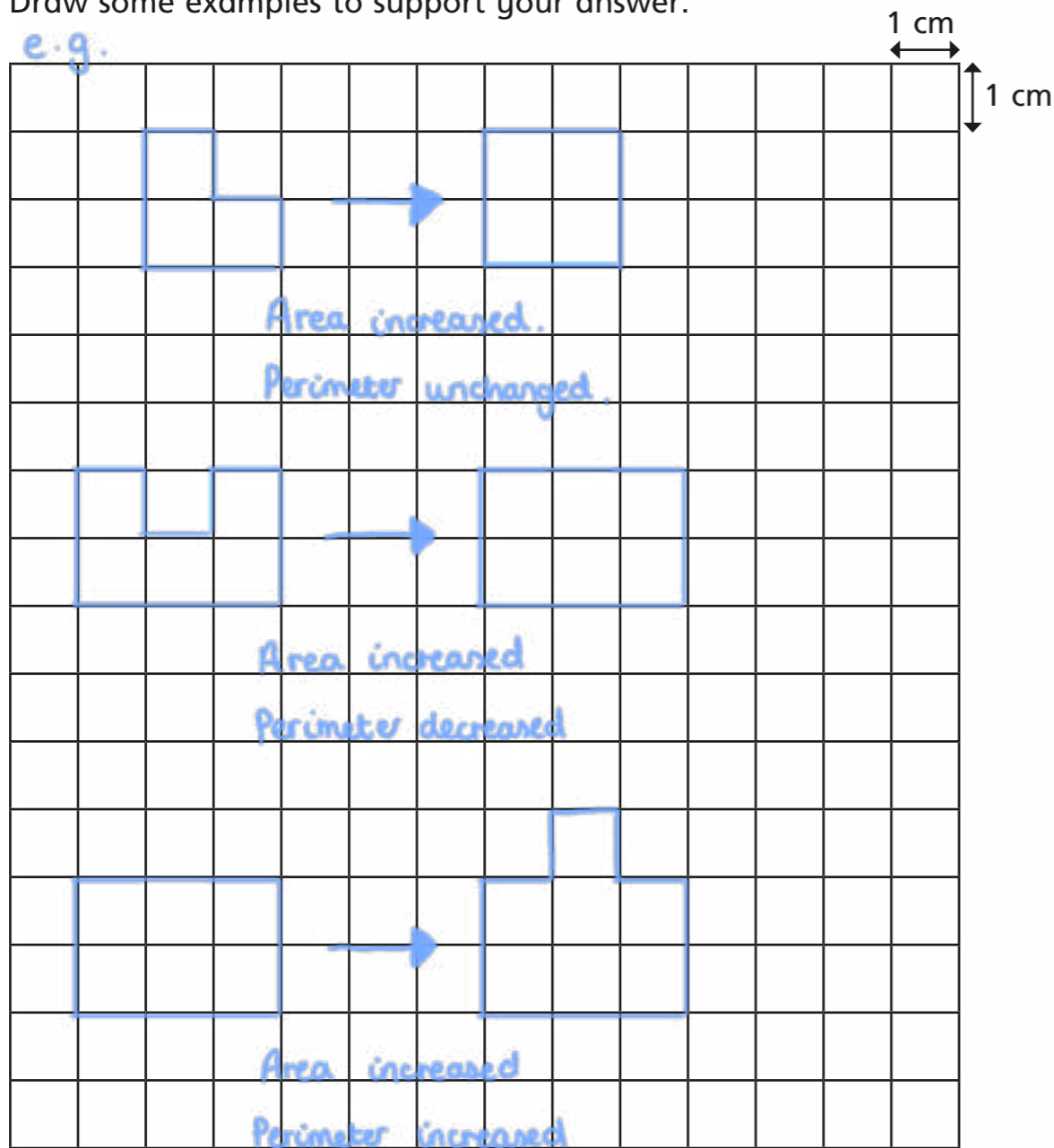


It depends on the shape.

Who do you agree with? Amir

Draw some examples to support your answer.

e.g.

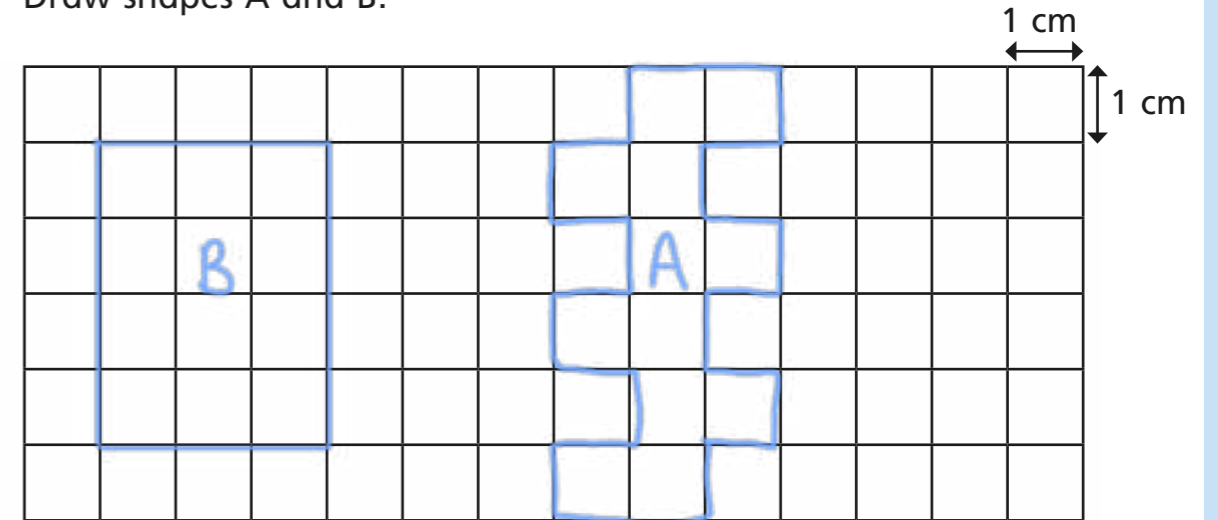


6

Two rectilinear shapes, A and B, each have an area of 12 squares.

- Shape A has the largest perimeter possible.
- Shape B has the smallest perimeter possible.

Draw shapes A and B.



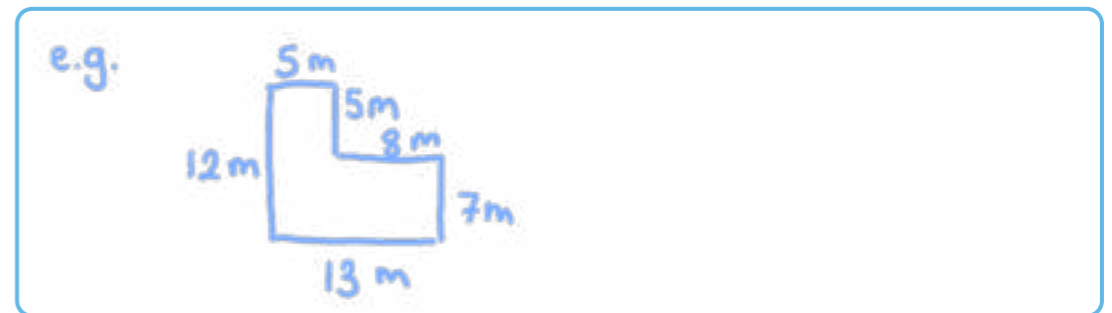
What do you notice?

7

Mr Jones has 50 m of fencing.

He wants to make a rectilinear enclosure using all the fencing.

- a) Draw an example of a shape he could make. Give units on your diagram.



b) What is the greatest possible area of the enclosure? 156m<sup>2</sup>

c) What is the smallest possible area of the enclosure? 24m<sup>2</sup>