

Area and perimeter

1 Use the words to complete the sentences.

perimeter

cm²

cm

m

area

m²

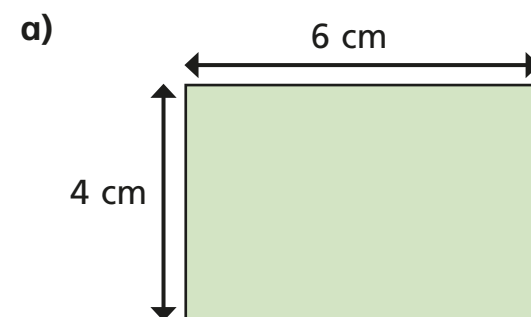
inside

around

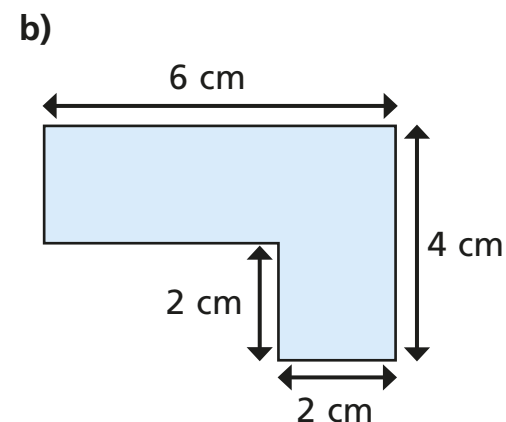
Area is the amount of space inside a two-dimensional shape. It can be measured in units such as cm² or m².

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.

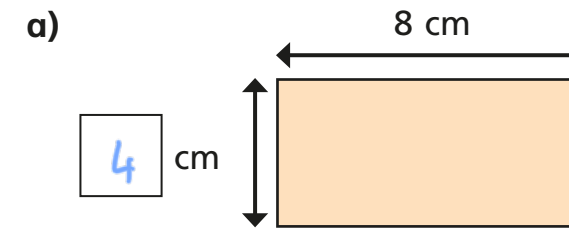


perimeter = 20 cm
area = 24 cm²

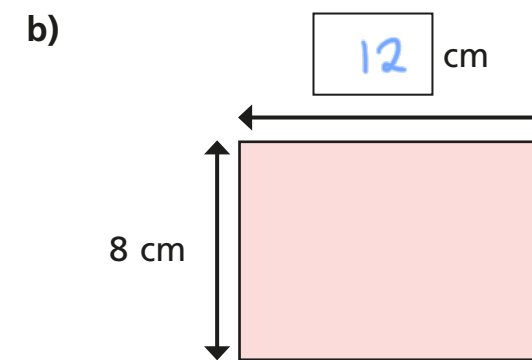


perimeter = 20 cm
area = 16 cm²

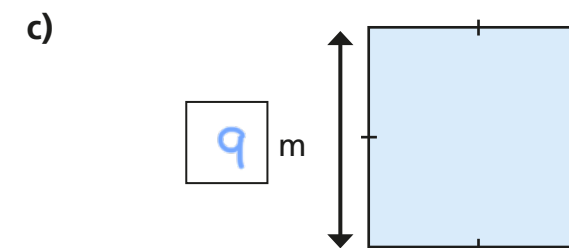
3 Work out the missing values.



area = 32 cm²
perimeter = 24 cm



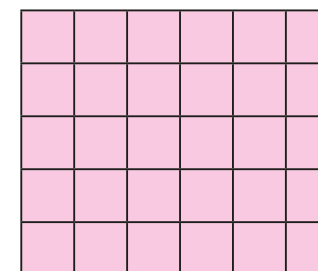
area = 96 cm²
perimeter = 40 cm



area = 81 m²
perimeter = 36 m

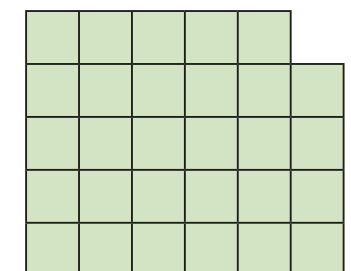
4 Work out the areas and perimeters of the shapes.

Shape A



area = 30 cm²
perimeter = 22 cm

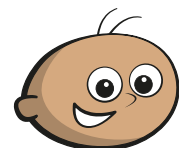
Shape B



area = 29 cm²
perimeter = 22 cm

What do you notice?

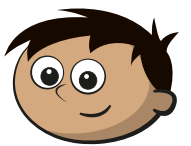
5



Tommy

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

Amir

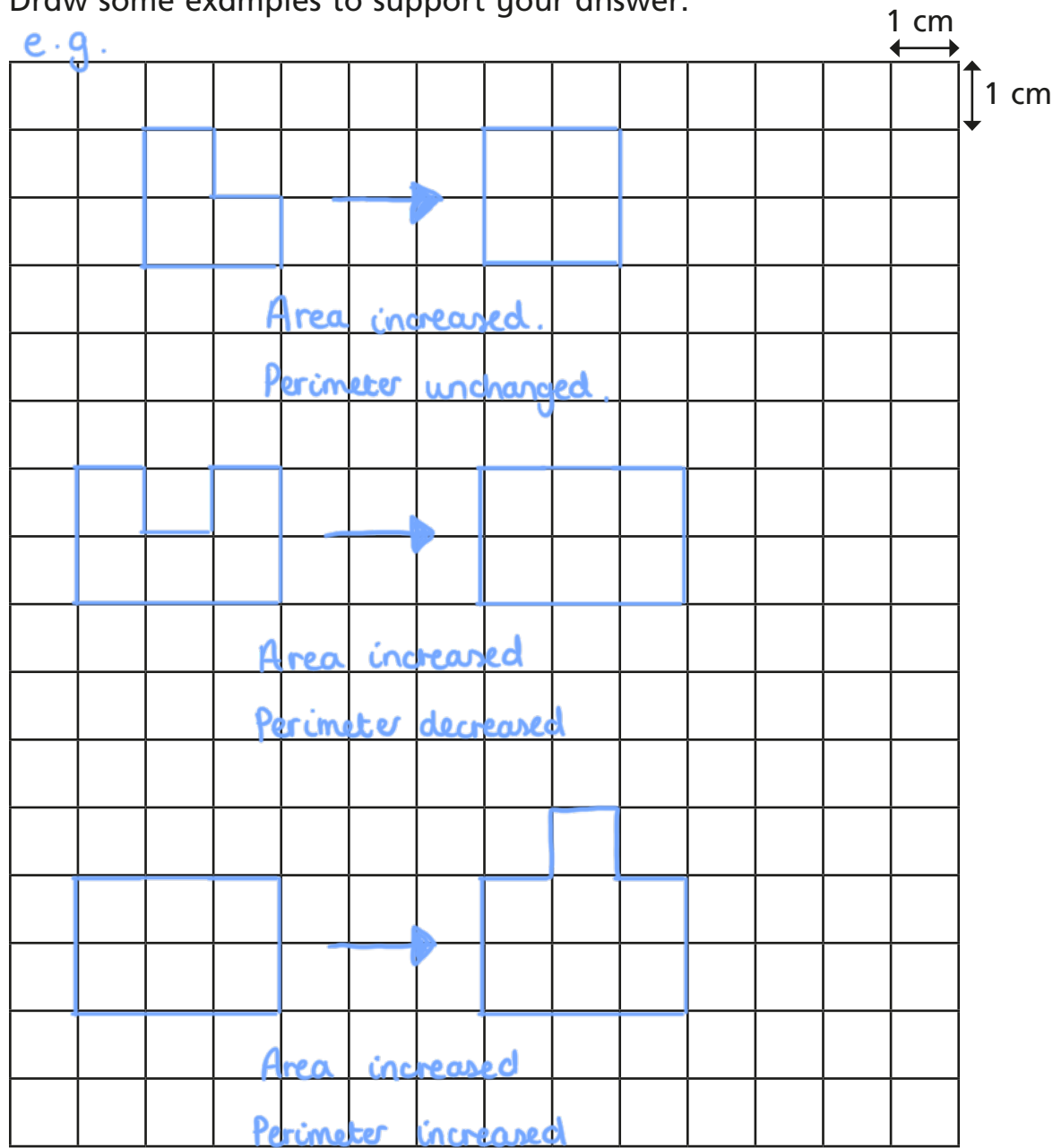


It depends on the shape.

Who do you agree with? Amir

Draw some examples to support your answer.

e.g.

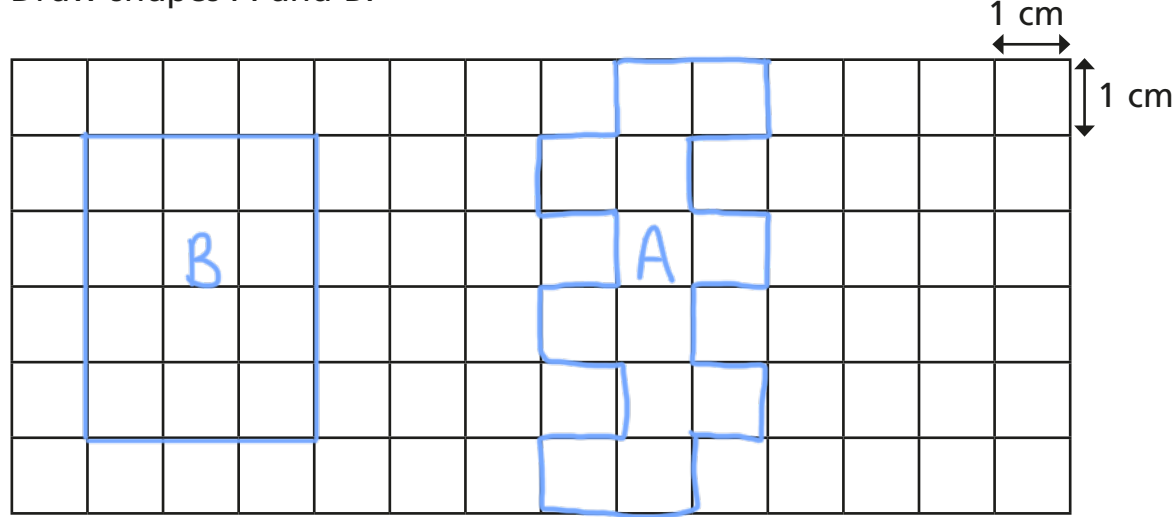


6

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.



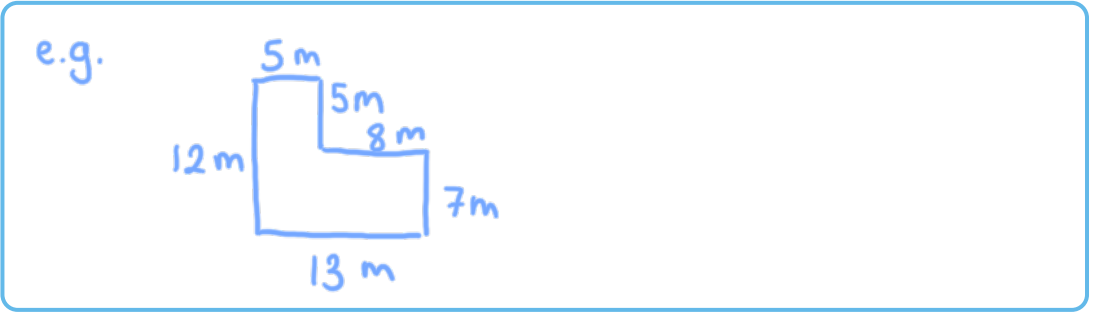
What do you notice?

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? 156 m²

c) What is the smallest possible area of the enclosure? 24 m²