

Mathematics

Compare the area and perimeter of rectangles

Mr Kelsall

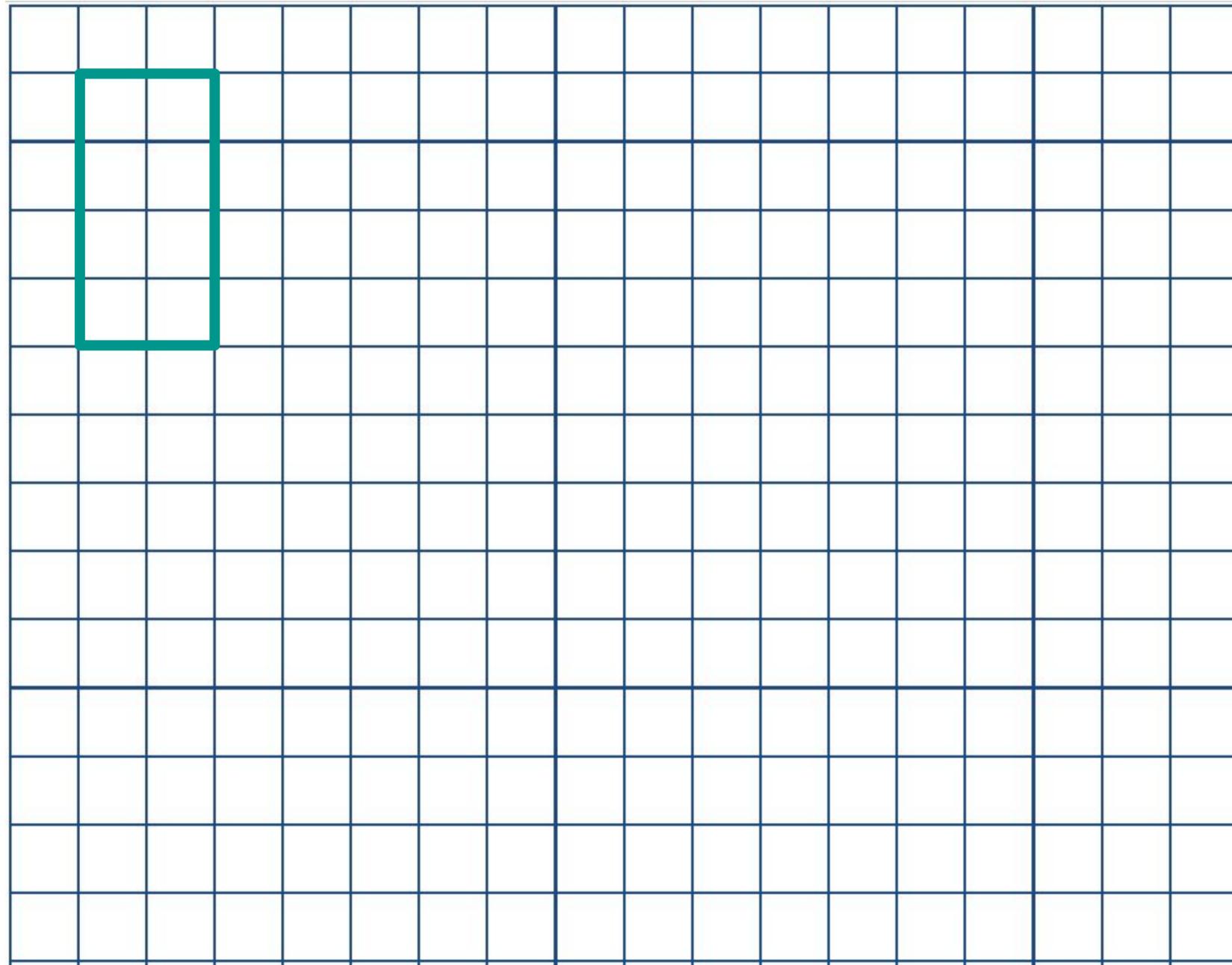


Warm up

How many different ways can you find to make rectilinear shapes with a perimeter of 12 units?

Why have I used the word units and not centimetres?

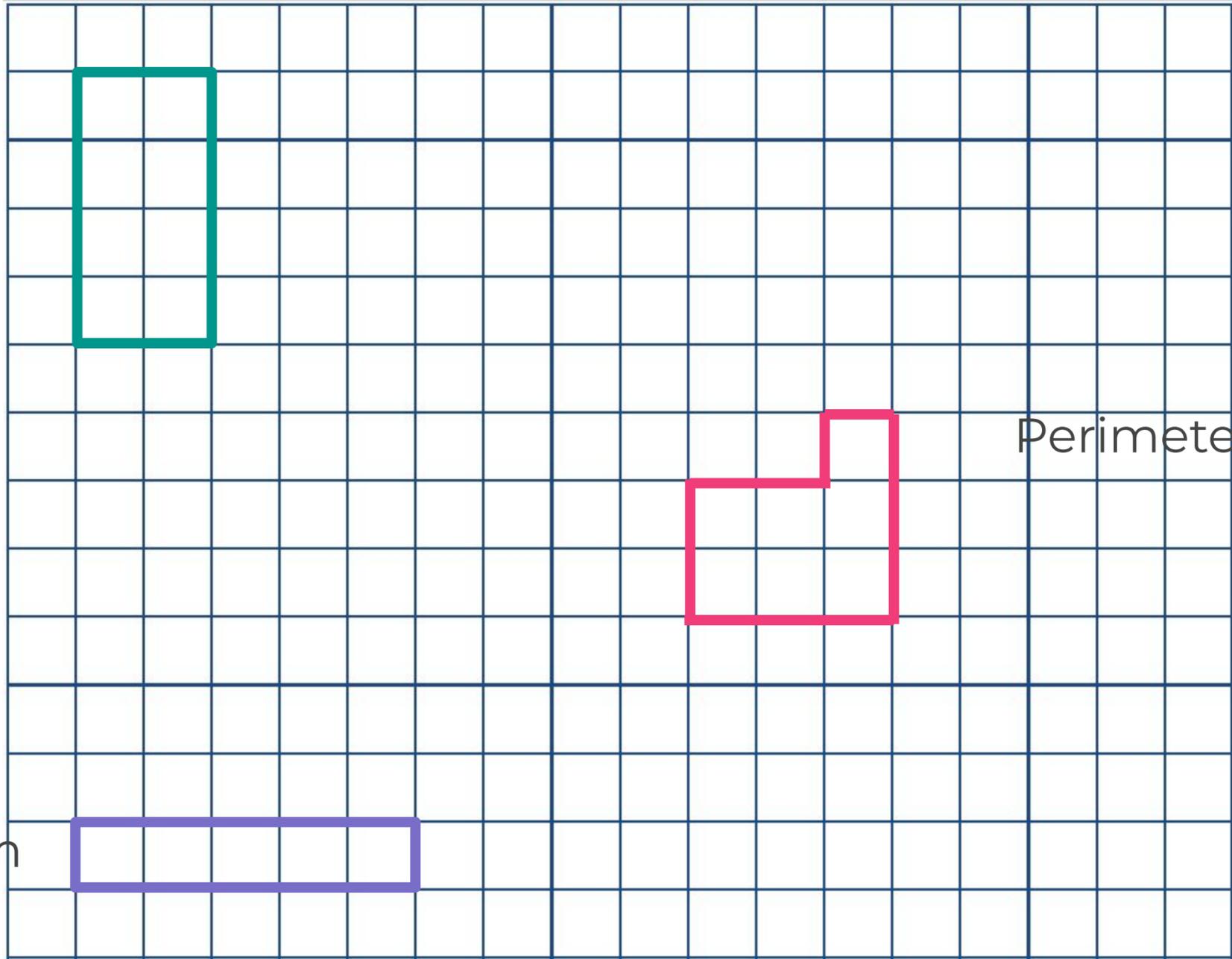
$$2 + 2 + 4 + 4 = 12 \text{ units}$$



What do you think of the following statement?

The value of the perimeter of a shape will always be greater than the value of the area.

Perimeter = 12 cm



Perimeter = 12 cm

Perimeter = 12 cm

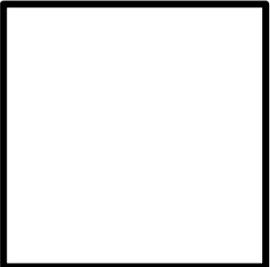


Explore this statement

The area of a square will always have a greater value than the perimeter.

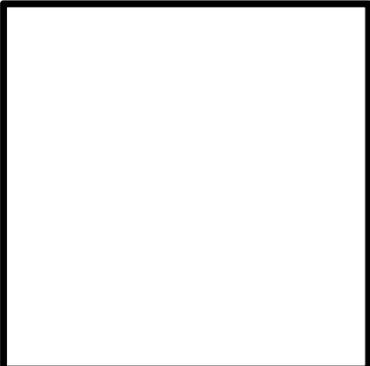
*images are not drawn to scale

5 cm



Perimeter =
Area =

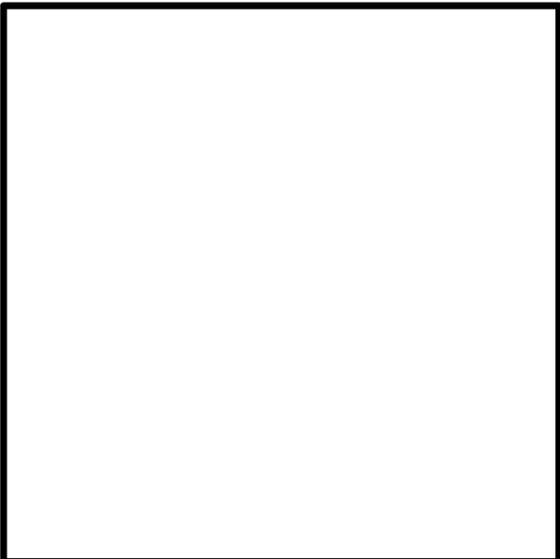
6 cm



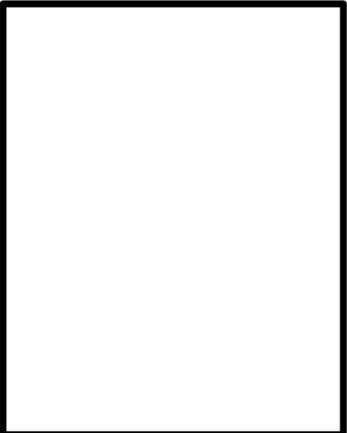
Perimeter =
Area =

Perimeter =
Area =

24 cm



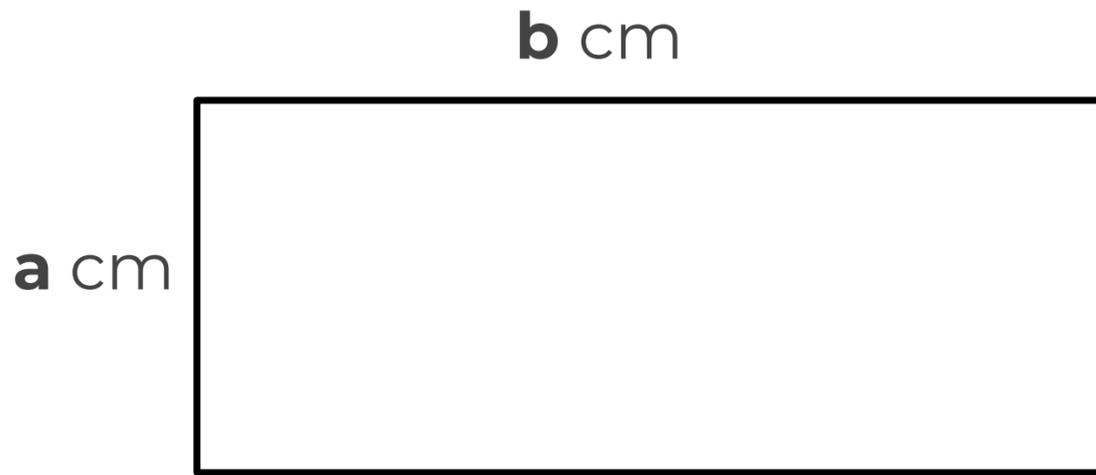
10 cm



Perimeter =
Area =

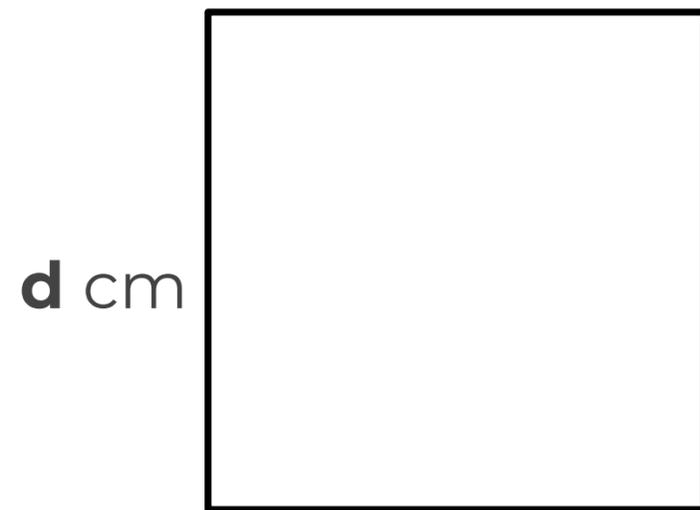


How can we describe the area and perimeter of the following rectangles?



Perimeter:

Area:



Perimeter:

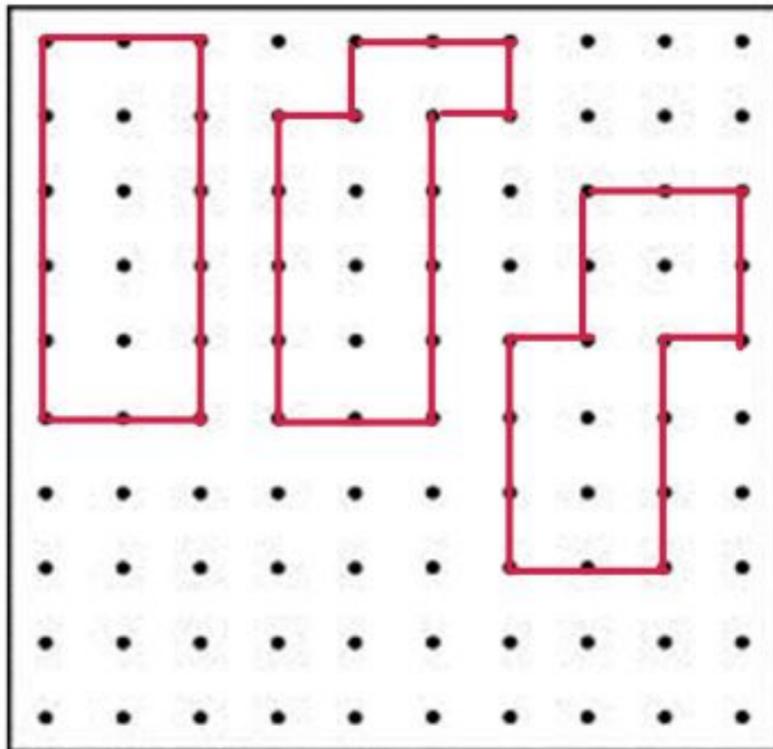
Area:



Independent task

Investigate the perimeter and area of rectilinear shapes.

- a) How many different rectilinear shapes can you find with a perimeter of 12 cm?
- b) How many rectilinear shapes can you find with an area of 12 cm²?



Examples of rectilinear shapes with an area of 10 cm²

