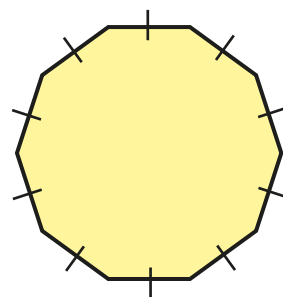
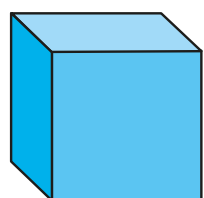
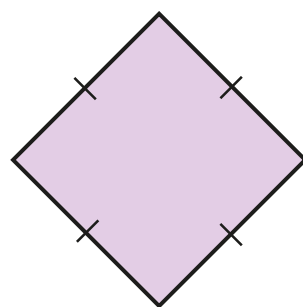
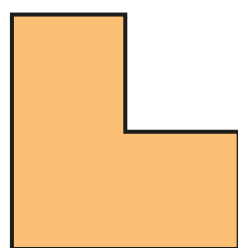
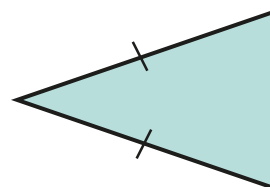
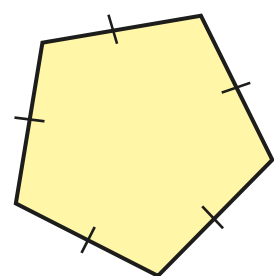
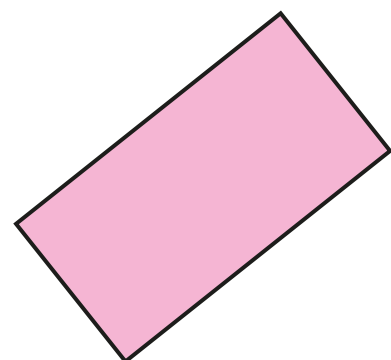
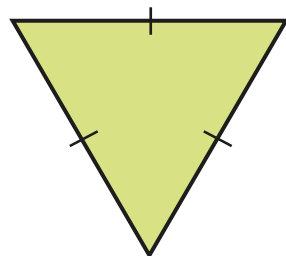


# Perimeter of regular polygons

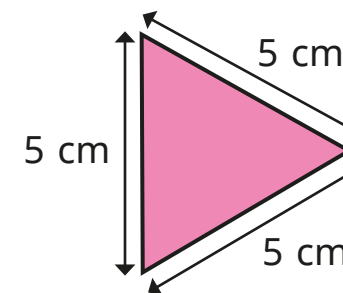
1 Tick the shapes that are regular polygons.



Compare answers with a partner.

2 Work out the perimeter of each shape.

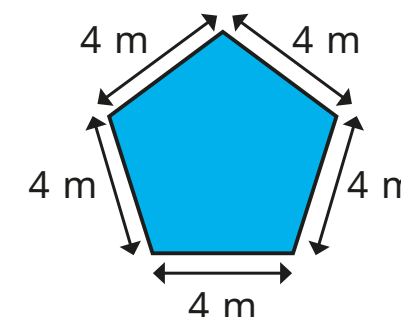
a)



$$5 \text{ cm} + 5 \text{ cm} + 5 \text{ cm} = \boxed{\phantom{00}} \text{ cm}$$

The perimeter is  $\boxed{\phantom{00}}$  cm.

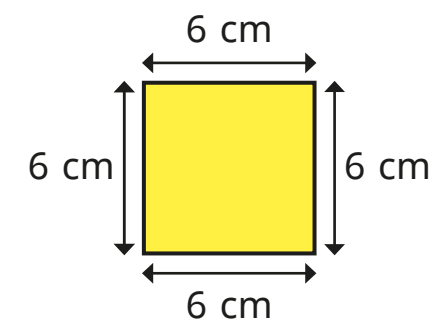
b)



$$\boxed{\phantom{00}} \text{ m} + \boxed{\phantom{00}} \text{ m} + \boxed{\phantom{00}} \text{ m} + \boxed{\phantom{00}} \text{ m} + \boxed{\phantom{00}} \text{ m} = \boxed{\phantom{00}} \text{ m}$$

The perimeter is  $\boxed{\phantom{00}}$  m.

c)



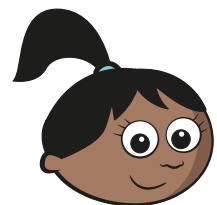
$$\boxed{\phantom{00}} \text{ cm} + \boxed{\phantom{00}} \text{ cm} + \boxed{\phantom{00}} \text{ cm} + \boxed{\phantom{00}} \text{ cm} = \boxed{\phantom{00}} \text{ cm}$$

$$\boxed{\phantom{00}} \times 6 \text{ cm} = \boxed{\phantom{00}} \text{ cm}$$

The perimeter is  $\boxed{\phantom{00}}$  cm.



- 3 Sam has spotted a pattern.

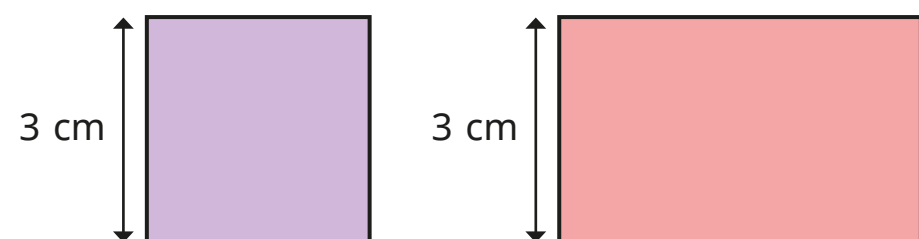


To find the perimeter of a regular polygon, I can just multiply the length of one side by the number of sides.

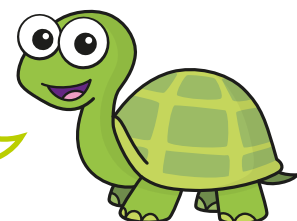
Use Sam's method to work out the perimeters of the regular polygons.

- a)  cm
- b)  cm
- c)  cm
- d)  cm

- 4 Tiny is working out the perimeters of the shapes.



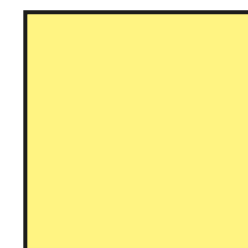
These shapes have the same perimeter.



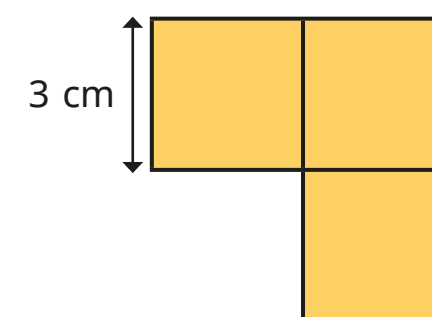
Do you agree with Tiny? \_\_\_\_\_

Talk about your answer with a partner.

- 5 The perimeter of the square is 28 cm.  
What is the length of each side?



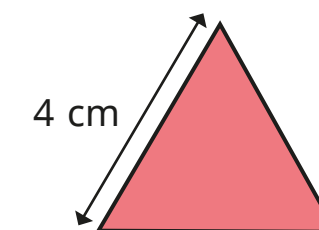
- 6 Ron makes this shape using squares.



- a) What is the perimeter of Ron's shape?



- b) Alex joins some of these equilateral triangles together.  
Alex's and Ron's shapes have the same perimeter.



What could Alex's shape be?

