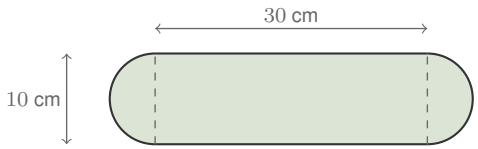
Take $\pi = 3.14$, or use the π key. Give answers to one decimal place. **Trace the boundary with a pencil before you calculate anything.**

1 Find the perimeter of this shape.



(a) the two straight sides (1)

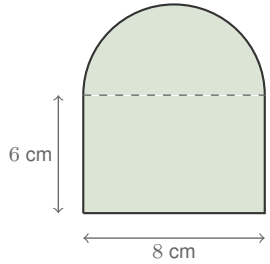
(b) the two curved ends, which together make one whole circle (2)

(c) the perimeter (1)

(d) **Explain why the two 10 cm ends are not part of the perimeter.** (2)

(6 marks)

2 Find the perimeter of this shape.



(a) **How many sides of the rectangle are on the outside?** (1)

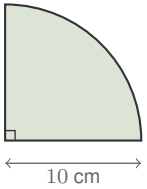
(b) Find their total length (1)

(c) Find the length of the curved edge (2)

(d) the perimeter (1)

(5 marks)

3 Find the perimeter of this quarter circle.



(a) Find the length of the curved edge (2)

(b) **The perimeter is not just the curved edge.** Write down what else is on the outside (2)

(c) the perimeter (1)

(5 marks)

4 A semicircle has a curved edge of length 18.8 cm.

(a) Find its radius (2)

(b) Find its area (2)

(4 marks)