Calculating the circumference and area of a circle

> ➤ **In this exercise, answers should be given correct to one decimal place where necessary.**
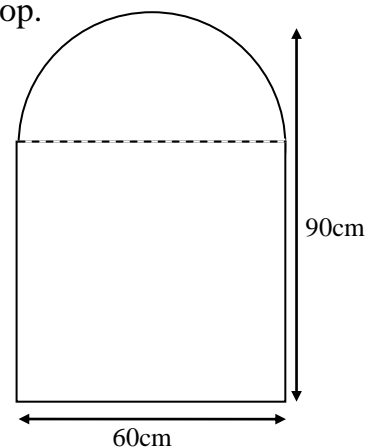> ➤ **Use $\pi = 3.14$ in all calculations.**

1. Find the circumference of a circle with a diameter of 24cm. [2]

2. A window is in the shape of a rectangle with a semi-circle on top. The total height of the window is 90cm and the total width is 60cm.

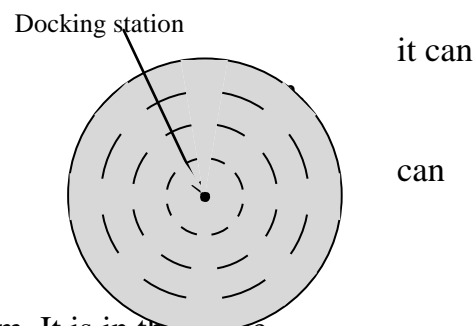**(a)** Calculate the area of glass needed to glaze the window. [5]

A rubber gasket forms a seal between the glass and the window frame.
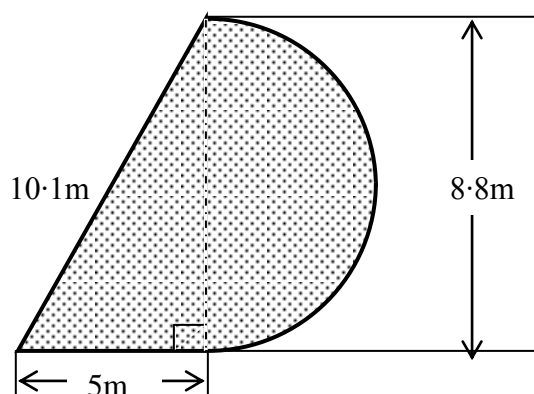
(b) Calculate the length of the gasket. [3]

90cm

60cm

3. A wireless telephone has a range of 50m. This means that it can receive and transmit calls up to 50m from its docking

Calculate the area in which it can receive and transmit calls. [2]

Docking station

4. The patio area of my garden is shaped as shown in the diagram. It is in the shape of a semi – circle and a right angled triangle.

10·1m

8·8m

5m

(a) Calculate the area of the patio. [5]

(b) Calculate the perimeter of the patio. [4]

[21 marks]