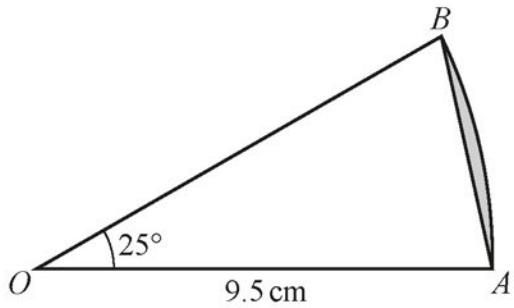**1**

The diagram shows a sector AOB of a circle with centre O and radius 9.5 cm. The angle AOB is $25°$.

(a) Calculate the length of the straight line AB. [2]

(b) Find the area of the segment shaded in the diagram. [3]