

3.

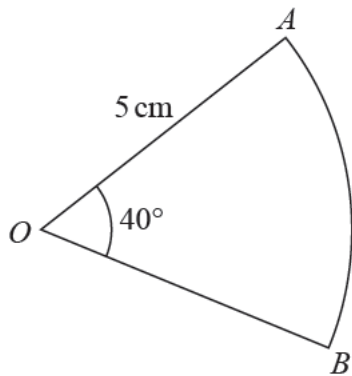
**Figure 1**

Figure 1 shows a sector AOB of a circle with centre O , radius 5 cm and angle $AOB = 40^\circ$

The attempt of a student to find the area of the sector is shown below.

$$\begin{aligned}\text{Area of sector} &= \frac{1}{2} r^2 \theta \\ &= \frac{1}{2} \times 5^2 \times 40 \\ &= 500\text{ cm}^2\end{aligned}$$

(a) Explain the error made by this student.

(1)

(b) Write out a correct solution.

(2)