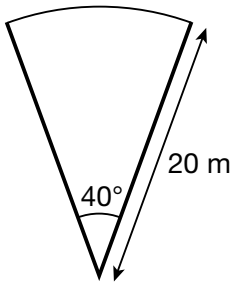


**14**

A lawn is to be made in the shape of a sector of a circle. The diagram below shows the measurements of this sector.



(a) Find the area of the sector giving your answer in  $\text{m}^2$  to the nearest whole number.

**[2 marks]**

(b) Before the lawn is laid, topsoil needs to be spread over the ground to a depth of 5 cm. Find the volume of topsoil needed in  $\text{m}^3$  giving your answer to the nearest whole number.

**[3 marks]**

(c) If soil has a density of  $1.1 \text{ g/cm}^3$ , find how many tonnes of soil are required.

(1 tonne = 1000 kg)

Give your answer to the nearest whole number.

**[3 marks]**

**[Total for question 14 is 8 marks]**