3

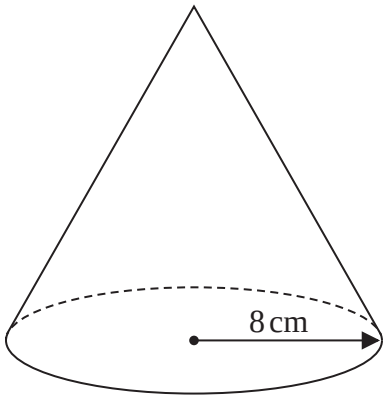

Diagram **NOT** accurately drawn

Figure 1

Figure 1 shows a solid right circular cone.

The radius of the base of the cone is 8 cm.
The volume of the cone is 320π cm^3

The **total** surface area of the cone is $k\pi$ cm^2

Calculate the value of k

(5)

$$\left[\text{Volume of a cone} = \frac{1}{3}\pi r^2 h\right]$$

$$\left[\text{Curved surface area of cone} = \pi r l\right]$$

Question 3 continued

(Total for Question 3 is 5 marks)