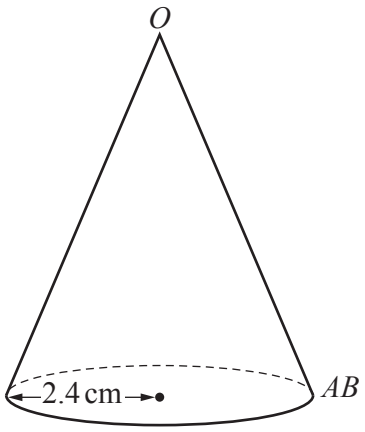
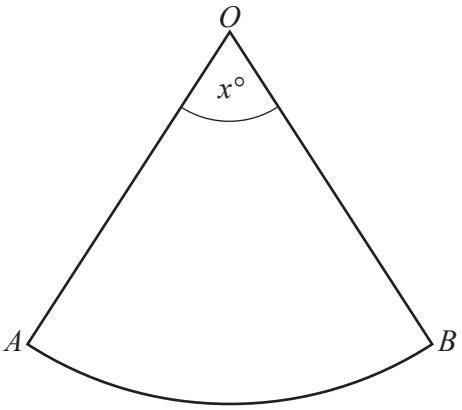
9 (a)





NOT TO SCALE

The volume of a paper cone of radius 2.4 cm is 95.4 cm^3.
The paper is cut along the slant height from O to AB.
The cone is opened to form a sector OAB of a circle with centre O.

Calculate the sector angle $x°$.
[The volume, V, of a cone with radius r and height h is $V = \frac{1}{3}\pi r^2 h$.]

..... [6]

(b) An empty fuel tank is filled using a cylindrical pipe with diameter 8 cm.
Fuel flows along this pipe at a rate of 2 metres per second.
It takes 24 minutes to fill the tank.

Calculate the capacity of the tank.
Give your answer in litres.

..... litres [4]