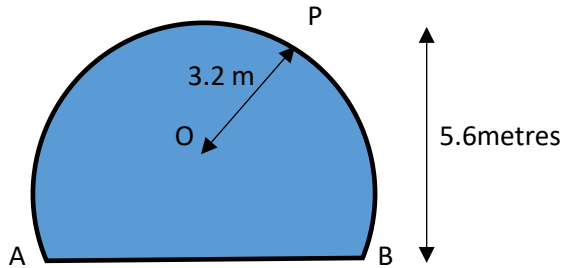
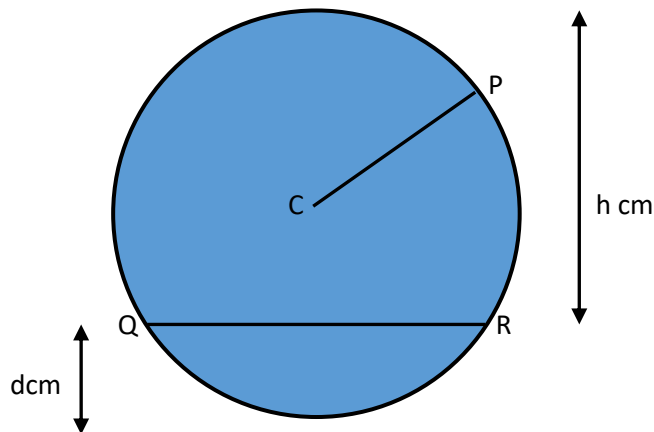


1. A new tunnel is ready for construction. The height of the tunnel will be 5.6 metres as shown.

If the radius of the tunnel is 3.2 metres, calculate the width of the road, represented by AB, correct to 1 decimal place.



2. Make a neat sketch of the diagram below and mark the centre C. P, Q and R are on the circumference.



- a) Draw in the perpendicular bisector of chord QR from C to a point S on the circumference.

b i) If $QR = 16\text{cm}$ and radius $CP = 10\text{cm}$, calculate the depth marked $d\text{ cm}$ in the diagram.

ii) Hence, calculate the height marked $h\text{ cm}$.

3. Duncan's Deli is designing a new logo with identical shapes. The width of each letter is 42 cm with a radius of 30 cm. Calculate the height, marked h on the diagram of each letter in the logo.

