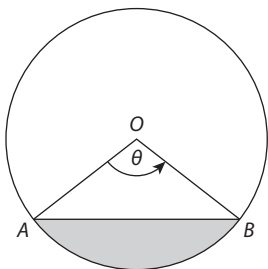


- 1 The diagram below shows a circle of radius 6 cm. $\text{AOB} = 120^\circ$. [Use $\pi = 3.14$]



Calculate:

- a) the circumference of the circle [2]
- b) the area of the circle [2]
- c) the area of the minor sector OAB [2]
- d) the area of the triangle AOB [2]
- e) the area of the shaded region [2]

f) the length of the minor arc AB

[2]

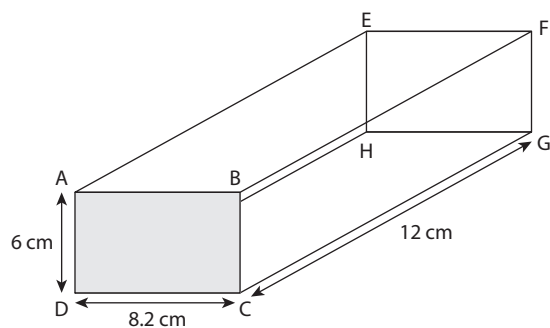
g) the length of the major arc AB

[2]

h) the perimeter of the shaded region

[2]

- 2 The diagram below, not drawn to scale, shows a glass prism of length 12 cm.



Calculate:

a) the area of the cross-section ABCD

[2]

b) the volume of the prism

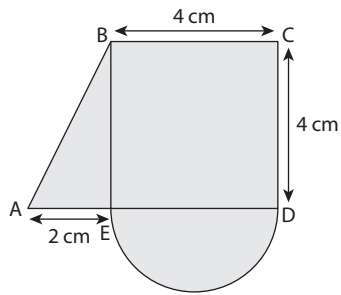
[2]

c) the total surface area, in cm^2 , of the prism

[4]

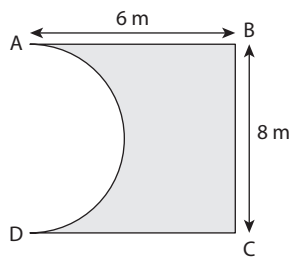
3 Calculate the total area of each of the following shapes. [$\pi = 3.14$]

a)



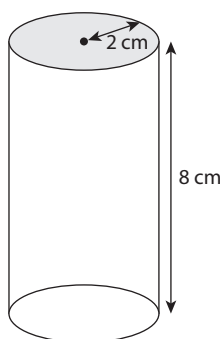
[3]

b)



[4]

4 The diagram below shows a cylinder. [$\pi = 3.14$]



Calculate:

a) the area of the shaded cross-section [2]

b) the volume of the cylinder [2]

c) the area of the curved part of the cylinder [2]

5 A piece of wire is bent to form a square of area 196 cm^2 .

a) Calculate:

i) the length of one side of the square [2]