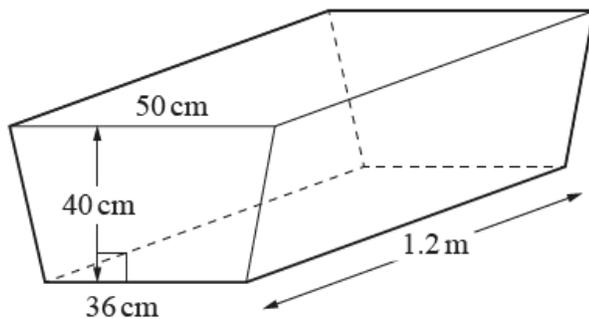


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NOT TO SCALE

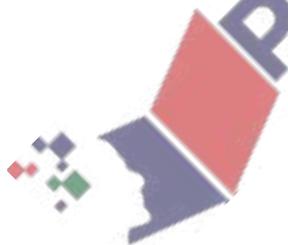
The diagram shows a water trough in the shape of a prism.  
The prism has a cross-section in the shape of an isosceles trapezoid.  
The trough is completely filled with water.

(a) Show that the volume of water in the trough is 206.4 liters.

[3]

(b) The water from the trough is emptied at a rate of 600 ml per second.

Calculate the time taken, in minutes and seconds, for the trough to be emptied.



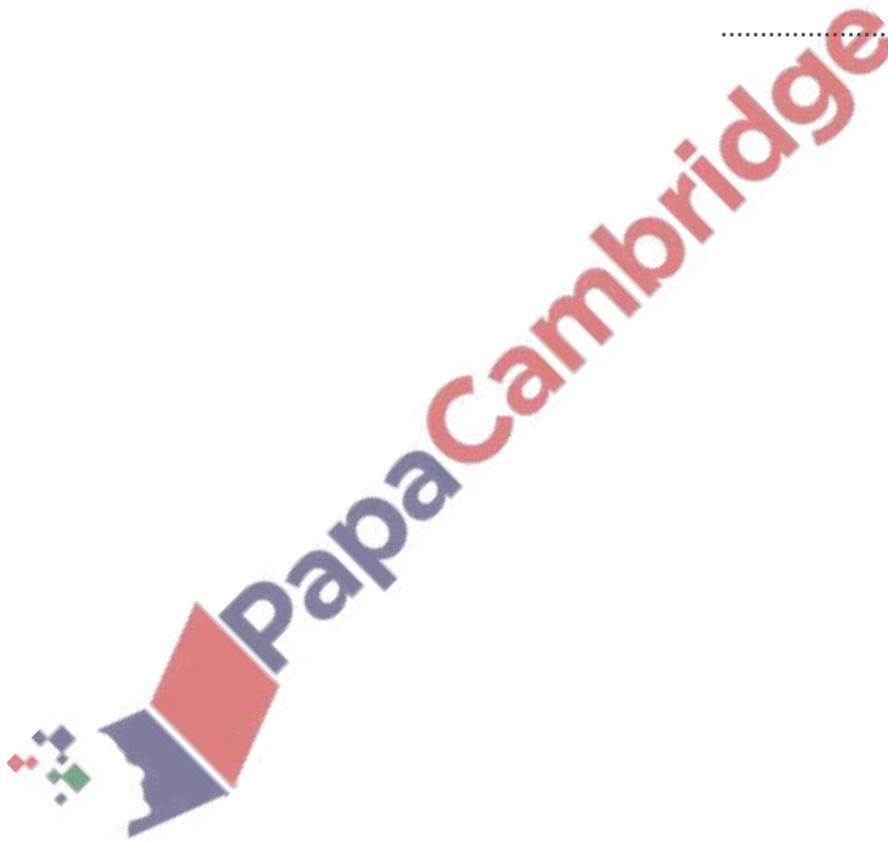
..... minutes ..... seconds [3]

- (c) All the water from the trough is emptied into a vertical cylindrical tank.  
The depth of the water in the tank is 84 cm.



- (i) Calculate the radius of the tank.

..... cm [3]

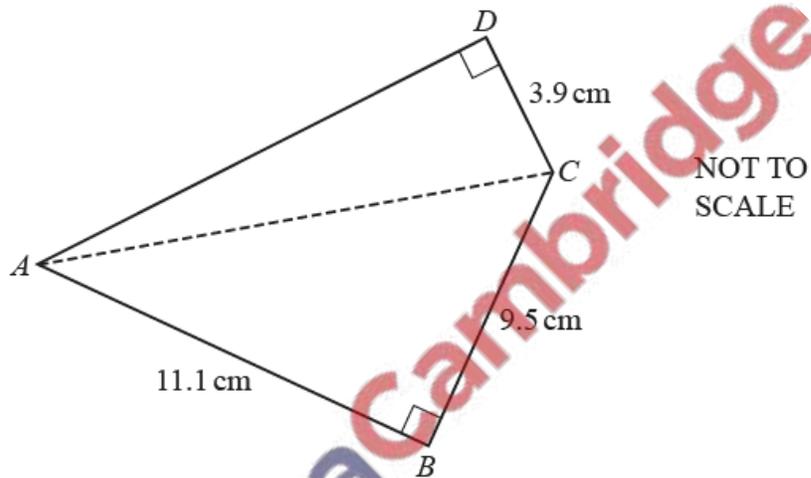


(ii) The tank is 60% full.

Calculate the height of the tank.

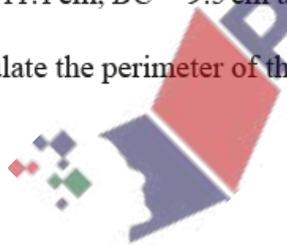
..... cm [2]

(d)



The diagram shows a quadrilateral with right angles at  $B$  and  $D$ .  
 $AB = 11.1$  cm,  $BC = 9.5$  cm and  $CD = 3.9$  cm.

Calculate the perimeter of the quadrilateral.



..... cm [4]