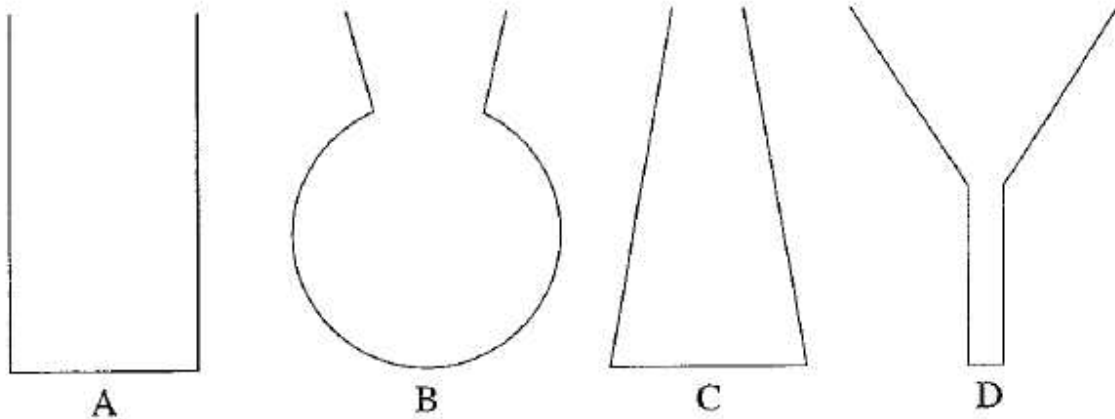
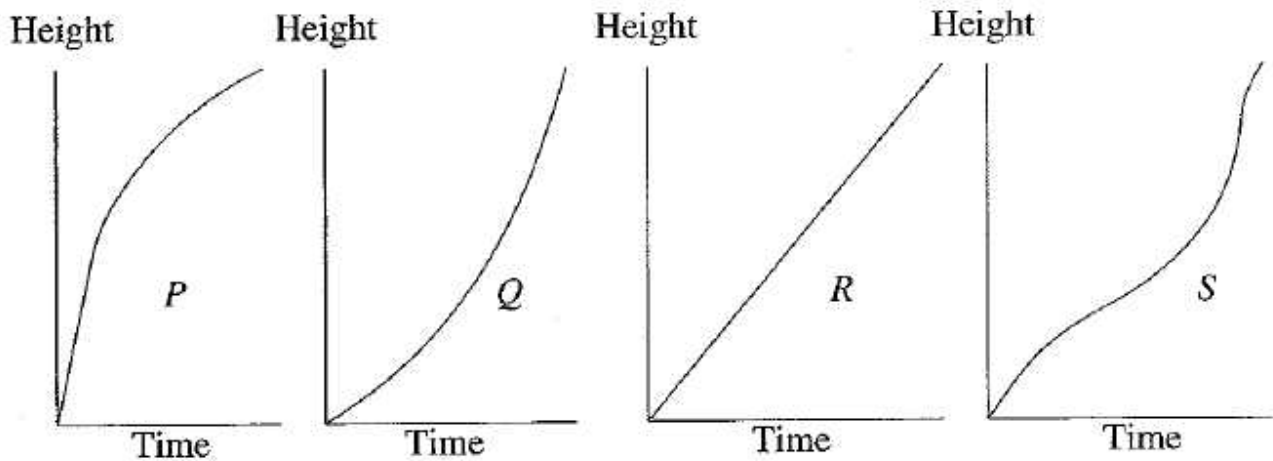


Past Paper Questions – Uses of graphs

4. The diagram shows four empty containers.



Water is poured at a constant rate into each of these containers.



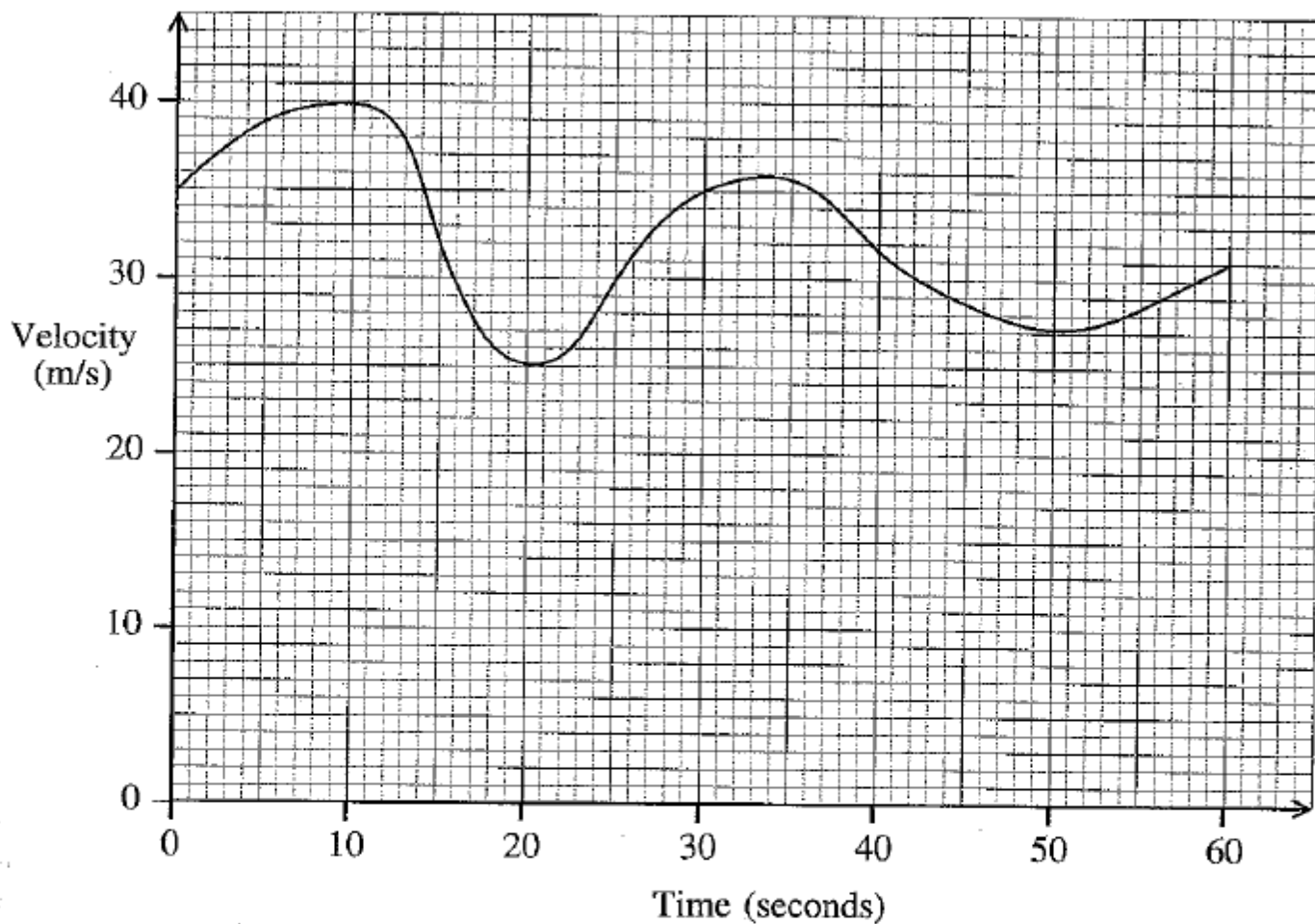
Each sketch graph shows the relationship between the height of water in a container and the time as the water is poured in.

Write the letter of each graph in the correct place in the table.

Container	Graph
A	
B	
C	
D	

(Total 3 marks)

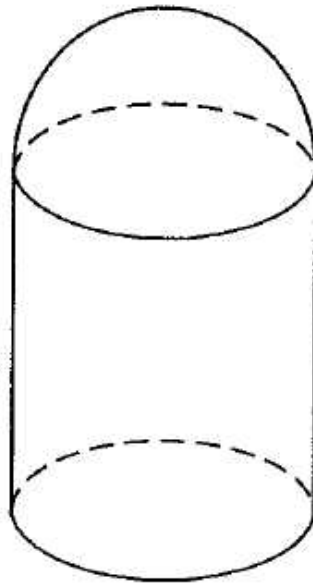
21. Here is a velocity-time graph for 60 seconds of a motor cyclist's journey.



(a) Calculate an estimate for the acceleration of the motor cyclist after 25 seconds.

..... m/s^2
(3)

10.

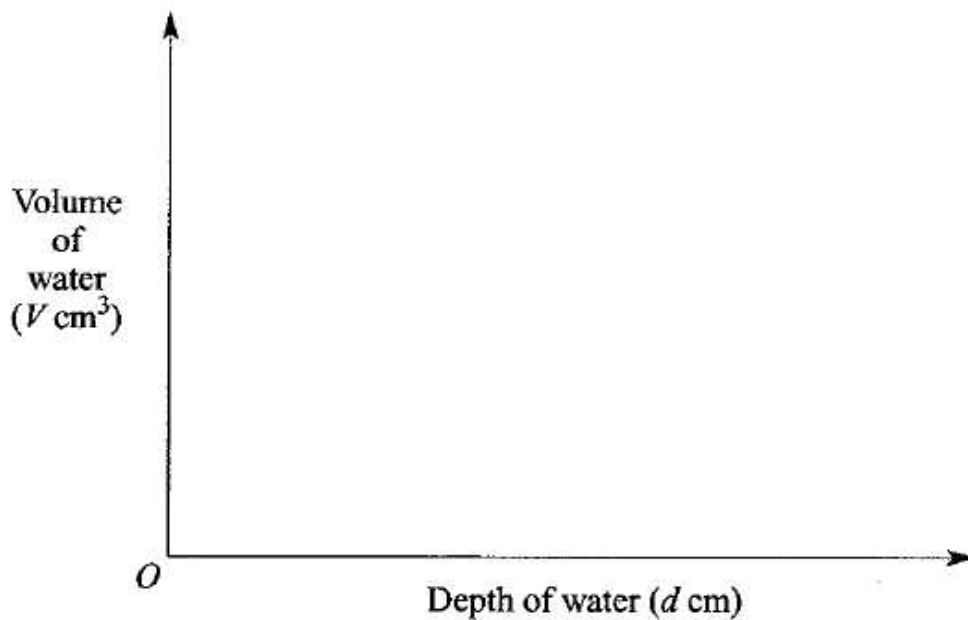


The diagram shows a water tank.

The tank is a hollow cylinder joined to a hollow hemisphere at the top.
The tank has a circular base.

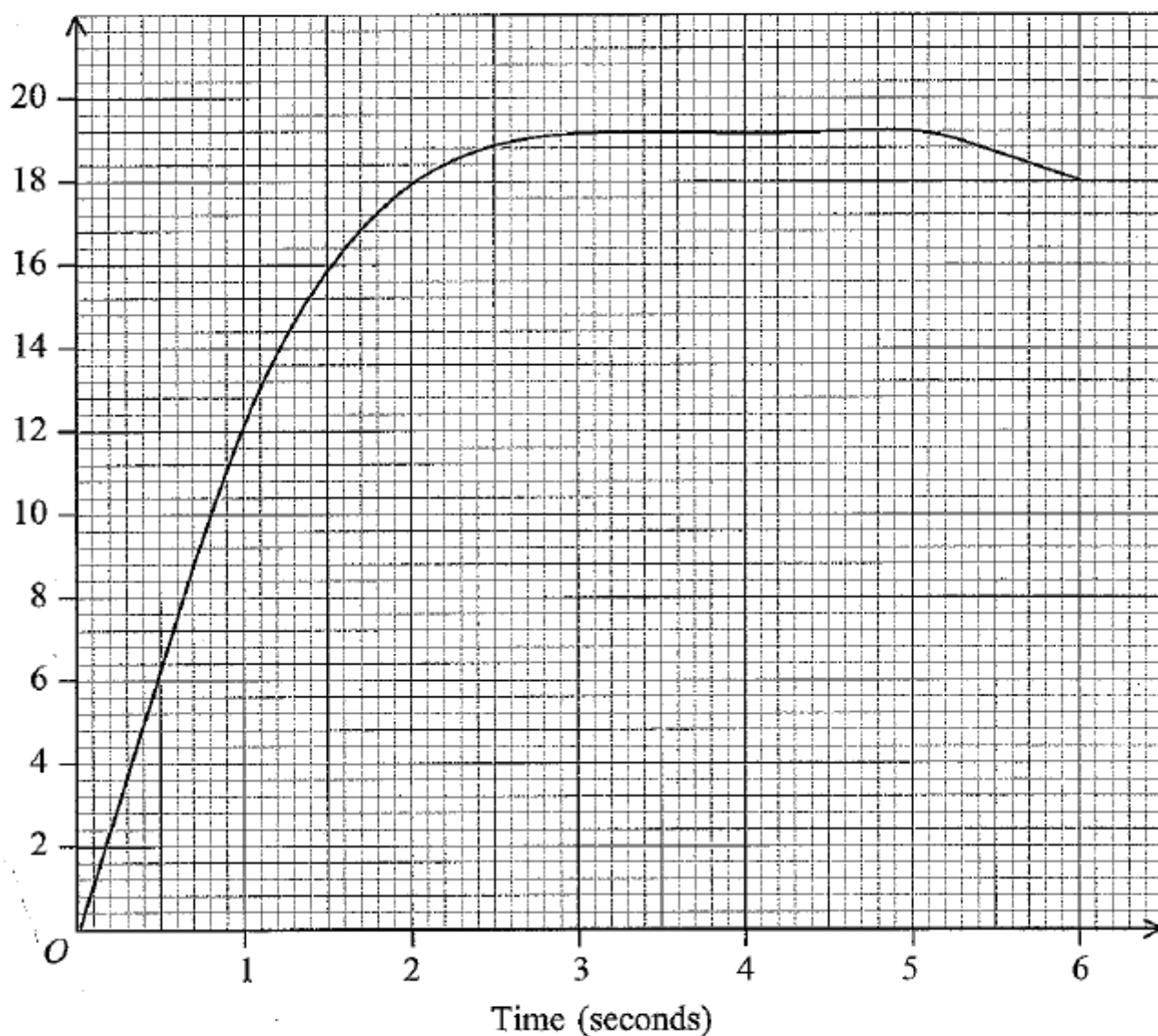
The empty tank is slowly filled with water.

- (a) On the axes, sketch a graph to show the relation between
the volume, $V \text{ cm}^3$, of water in the tank
and
the depth, $d \text{ cm}$, of water in the tank.



15. Here is a velocity/time graph for the first 6 seconds of the movement of an object.

Velocity (m/s)



(a) Calculate an estimate for the object's acceleration at $1\frac{1}{2}$ seconds.