

- 5 The volume of liquid in a container is  $V \text{ cm}^3$  when the depth of the liquid is  $h \text{ cm}$ . Liquid is added to the container at a rate of  $36 \text{ cm}^3/\text{s}$ . Given that  $V = 4h^3$ , find the rate at which the depth of the liquid is increasing when  $V = 500$

(7)

(Total for Question 5 is 7 marks)



P 4 2 0 6 6 A 0 7 2 8