6 The volume of oil in a container is V cm^3 when the height of the oil is h cm.
Oil is pouring into the container at a constant rate of 12 cm^3/s.
Given that $V = 3h^3$

find the exact rate, in cm/s, at which the height of the oil is increasing when $V = 1536$ cm^3

(7)

DO NOT WRITE IN THIS AREA

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Question 6 continued

(Total for Question 6 is 7 marks)