05	5a	Use the change of base formula to evaluate $\log_3 7$, correct to two decimal places.	2

$$\log_3 7 = \frac{\log_e 7}{\log_e 3} \qquad \text{(Could have used base 10)}$$

$$= 1.771243749 \ldots$$

$$= 1.77 \qquad \text{(correct to 2 decimal places)}$$

* These solutions have been provided by *projectmaths* and are not supplied or endorsed by the Board of Studies

Board of Studies: Notes from the Marking Centre

This part was straightforward, with $\log_3 7$ easily evaluated through the use of logarithms to base 10 or e. Many candidates presented an appropriate expression in terms of a new base; however the subsequent use of the calculator was often flawed.

Source: http://www.boardofstudies.nsw.edu.au/hsc_exams/