3 The nth term of an arithmetic series is u_n such that

$$u_n = \ln a + (n - 1)\ln b$$

where a and b are positive integers.

Given that $u_2 = \ln 12$ and that $u_5 = \ln 768$

find the value of a and the value of b.

(7)

Question 3 continued

(Total for Question 3 is 7 marks)