

Higher Maths
SQA 2021 Paper 2
Question 12



A sequence of real numbers is such that

- the terms of the sequence satisfy the recurrence relation
$$u_{n+1} = 9u_n - 440$$
- $u_{n+1} > u_n$ for all values of n .

The difference between two particular terms, u_{k+1} and u_k , is 1000.

Determine, algebraically, the value of u_k .

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Answer: 180