Higher Maths
SQA 2025 Paper 2
Question 9

A sequence satisfies the recurrence relation $u_{n+1} = mu_n + 4$, where m is a constant.

(a) The sequence approaches a limit of 10 as $n \to \infty$.

Determine the value of m. **2**

(b) Given that $u_1 = 19$, calculate the value of u_0. **1**

Answers:

(a) $\frac{3}{5}$

(b) 25

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