

Higher Maths
SQA 2019 Paper 1
Question 4



A sequence is generated by the recurrence relation

$$u_{n+1} = mu_n + c,$$

where the first three terms of the sequence are 6, 9 and 11.

(a) Find the values of m and c . 3

(b) Hence, calculate the fourth term of the sequence. 1

Answers:

(a) $m = \frac{2}{3}$ and $c = 5$

(b) $\frac{37}{3}$ or $12\frac{1}{3}$