

AQA, OCR, Edexcel

GCSE

GCSE Maths

Sequence Problems Answers

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Total Marks: /13

Sequences Problems

1. The n th term of a sequence is given by the expression $6n + 5$. The sum of two consecutive terms is 112. Find the value of these two terms.

$$[6n + 5] + [6(n + 1) + 5] = 112$$

$$12n + 16 = 112$$

$$\text{Thus, } n = 8$$

Hence, the terms are when $n = 8$ and $n = 9$.

I.e. the terms are 53 and 59.

(3 marks)

2. The n th term of a sequence is given by the expression $10n - 11$. The sum of two consecutive terms is 188. Find the value of these two terms.

89 and 99.

(3 Marks)

3. The n th term of a sequence is given by the expression $n^2 + 5$. The sum of two consecutive terms is 95. Find the value of these two terms.

41 and 54.

(4 Marks)

4. The first 4 terms in a sequence are $\sqrt{5}$, 5, $5\sqrt{5}$, 25
Find the expression for the n th term of the sequence.

$$a_n = (\sqrt{5})^n.$$

(3 Marks)