1 Find the nth term of each decreasing sequence.

(a) $20, 17, 14, 11, \ldots$ (1)

(b) $30, 26, 22, 18, \ldots$ (1)

(c) $9, 7, 5, 3, \ldots$ (1)

(d) $50, 45, 40, 35, \ldots$ (1)

(4 marks)

2 Find the nth term of each sequence.

(a) $-2, -4, -6, -8, \ldots$ (1)

(b) $-5, -4, -3, -2, \ldots$ (1)

(c) $0, -1, -2, -3, \ldots$ (1)

(d) $-1, -5, -9, -13, \ldots$ (1)

(4 marks)

3 Complete each table and find the nth term.

(a) Position $1, 2, 3, 4, 5$; Term $-2, -4, -6, -8, -10$ (1)

(b) Position $1, 2, 3, 4, 5$; Term $-5, -4, -3, -2, -1$ (1)

(c) Position $1, 2, 3, 4, 5$; Term $3, 5, 7, 9, 11$ (1)

(3 marks)

4 For each rule, write down the first three terms and say whether the sequence increases or decreases.

(a) $5n - 2$ (1)

(b) $12 - 2n$ (1)

(c) $-3n + 10$ (1)

(d) $n - 8$ (1)

(4 marks)

5 A sequence has nth term $40 - 6n$.

(a) Write down the first four terms (1)

(b) Find the 6th term (1)

(c) Find the first term of the sequence that is negative, and say which position it is in (2)

(4 marks)

6 Two pupils find the nth term of $11, 8, 5, 2$. Ojok writes $14 - 3n$ and Kemi writes $-3n + 14$.

(a) Work out both rules for $n = 3$ (1)

(b) Are both pupils right? Explain. (2)

(c) Find the 20th term (1)

(4 marks)