

Revision

① The n^{th} term of a sequence is $2n+1$.

The n^{th} term of a different sequence is $3n-1$.

Work out the numbers between 20 and 40 that appear in both sequences. [3]

② What type of sequence is each of the following?

(i) 1, 2, 3, 4

(ii) 1, 2, 4, 7

(iii) 1, 2, 4, 8

(iv) 8, 6, 4, 2

[2]

③ (a) What is the n^{th} term of the following sequences?

(i) 6, 10, 14, 18

[1]

(ii) 2, 14, 36, 68

[2]

(iii) 2, $2\sqrt{7}$, 14, $14\sqrt{7}$

[4]

(b) Is 110 in any of the above sequences? [3]

④ (a) Write the first 3 terms of the sequence n^2-n+11 . [2]

(b) Show that this does not only produce prime numbers. [2]

⑤ What is the 10th term of the sequence $2^n + 2^{n-1}$? [1]

⑥ What is the first negative term of the sequence with n^{th} term $= 98 - 3n$? [3]