

(C1-6.2) Name:

Homework Questions 2 – Using the Nth Term of A Sequences

1. Find the value of U_1, U_2, U_3 and U_{20}

a) $U_n = 3n$

b) $U_n = 7n - 2$

c) $U_n = 2n^2$

d) $U_n = n^2 - 4$

2. A sequence is generate according to the formula $U_n = an - b$.

Given that $U_3 = 7$ and $U_5 = 13$. find the value of a and b

3. Find the value of n for which $U_n = (3n - 2)^2$ has the given value of $U_n = 100$

4. A sequence is generated from the formula $U_n = pn^2 - q$ where p and q are constants. Given that $U_1 = -1$ and $U_3 = 7$, find the value of the constants p and q.

5. Find the value of n for which U_n has the given value

a) $U_n = 4n - 1$ and $U_n = 23$

b) $U_n = \frac{2n^3 - 1}{3}$ and $U_n = 5$

c) $U_n = 5n + 6$ and $U_n = 31$