

STEP 1: GENERATE SEQUENCES GIVEN A RULE IN WORDS

Work out the first five terms of each sequence.

1) The first term is 8. Each term is triple the previous.

____, _____, _____, _____, _____

2) The first term is 1. Each term is 4 less than the previous.

____, _____, _____, _____, _____

STEP 2: GENERATE SEQUENCES GIVEN A SIMPLE ALGEBRAIC RULE

Find the value of the expressions when $n = 1, 2, 10$ & 50 .

1) $3n + 7$ _____

2) $18 - n$ _____

3) $n^2 + 2$ _____

STEP 3: GENERATE SEQUENCES GIVEN A COMPLEX ALGEBRAIC RULE

Do the following give the same sequences?

$5n + 5$

$5(n + 1)$

$(3n)^2$

$3n^2$

$20 - n$

$n - 20$

$n(n - 1)$

n^3

STEP 4: FIND THE RULE FOR THE NTH TERM

Find the n^{th} term of

1) 11, 31, 51, 71...

4) 10, 7, 4, 1...

2) 3, 9, 15, 21.

5) 6, 4, 2, 0...

3) 13, 22, 31, 40...

6) -10, -13, -16, -19...