



# **SEQUENCES**

### NTH-TERM FORMULAE

Ref: G291.2R1

A1 Write down the first four terms of the sequence given by the formula:  6n	A2 Write down the first three terms of the sequence given by the formula: $3n+2$	A3 Write down the $10^{th}$ term of the sequence given by the formula: $20-4n$	A4 Write down the $51^{st}$ term of the sequence given by the formula: $\frac{n+5}{2}$
B1 Write down the first five terms of the sequence given by the formula: $n^2$	B2 Write down the first four terms of the sequence given by the formula: $n^2 - 3n$	B3 Write down the $15^{th}$ term of the sequence given by the formula: $n(n+1)$	B4 Write down the 99 <sup>th</sup> term of the sequence given by the formula: $(n+2)(n-3)$
C1 Write down the first four terms of the sequence given by the formula: $3^{n}$	C2 Write down the first five terms of the sequence given by the formula: $2^{n}-1$	C3 Write down the $10^{th}$ term of the sequence given by the formula: $4 \times 2^{n}$	C4 Write down the $100^{th}$ term of the sequence given by the formula: $(-1)^n$
D1 Write down the first six terms of the sequence given by the formula: $n^3$	D2 Write down the first four terms of the sequence given by the formula: $\frac{n-1}{3}$	D3 Write down the 11 <sup>th</sup> term of the sequence given by the formula: $(n+1)(n-3)(n+5)$	D4 Write down the 19 <sup>th</sup> term of the sequence given by the formula: $\frac{n^2 + 5}{n - 4}$





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6,12,18,24	5,8,11	20 - 4(10) = -20	2
B1	B2	В3	B4

Write down the first five terms of
the sequence given by the formula:
, 2

## Write down the first four terms of the sequence given by the formula:

3

3,9,27,81

# C2

Write down the first five terms of the sequence given by the formula:

Write down the first four terms of the sequence given by the formula:

 $n^2-3n$ 

-2, -2, 0, 4

$$2^{n}-1$$

1,3,7,15,31

### **C3**

Write down the 10<sup>th</sup> term of the sequence given by the formula:

Write down the 15<sup>th</sup> term of the

sequence given by the formula:

n(n+1)

15(15+1)=240

$$4\times 2^n$$

$$4 \times 2^{(10)} = 4096$$

Write down the 51<sup>st</sup> term of the sequence given by the formula:

$$\frac{n+5}{2} = \frac{(51)+5}{2} = 28$$

# Write down the 99<sup>th</sup> term of the sequence given by the formula:

$$(n+2)(n-3)$$

$$(99+2)(99-3) = 9696$$

# Write down the 100<sup>th</sup> term of the sequence given by the formula:

$$(-1)^n$$

$$(-1)^{100} = 1$$

#### **D**1

**C**1

Write down the first six terms of the sequence given by the formula:

 $n^3$ 

1,8,27,64,125,216

### **D2**

Write down the first four terms of the sequence given by the formula:

$$\frac{n-1}{3} \longrightarrow 0, \frac{1}{3}, \frac{2}{3}, 1$$

### **D3**

Write down the 11<sup>th</sup> term of the sequence given by the formula:

$$(n+1)(n-3)(n+5)$$
  
 $(11+1)(11-3)(11+5) = 1536$ 

### **D4**

**C4** 

Write down the 19<sup>th</sup> term of the sequence given by the formula:

$$\frac{n^2+5}{n-4} = \frac{(19)^2+5}{(19)-4} = 24.4$$