



# Cubic Sequences

## Worksheet 1

*Try answering each of the following without a calculator.  
Show all of your working and state any formula used.*

*Click on the link in the Header of this page, or scan the QR Code to view the online notes and tutorial(s) for this worksheet.*

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### Exercise 1

Find the formula for the  $n^{\text{th}}$  term of the sequence whose first few terms are:

4, 14, 40, 88, 164, ...

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### Exercise 2

Find the formula for the  $n^{\text{th}}$  term of the sequence whose first few terms are:

4, 23, 66, 145, 272, ...



### Exercise 3

Find the formula for the  $n^{\text{th}}$  term of the sequence whose first few terms are:

$$-1, 1, -5, -25, -65, \dots$$

### Exercise 4

Find the formula for the  $n^{\text{th}}$  term of the sequence whose first few terms are:

$$1, 14, 65, 178, 377, \dots$$

### Exercise 5

Find the formula for the  $n^{\text{th}}$  term of the sequence whose first few terms are:

$$11, 6, -25, -100, -237, \dots$$