

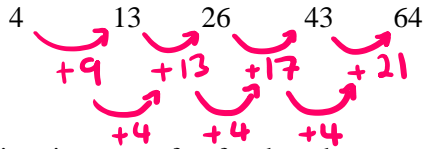


# $n^{\text{th}}$ term of a Quadratic Sequence



REVISE THIS TOPIC

1 Here are the first five terms of a quadratic sequence.



$$\frac{4}{2} = 2$$

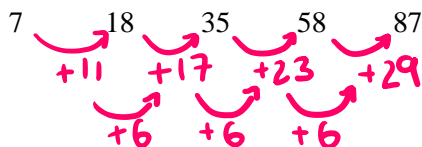
Find an expression, in terms of  $n$ , for the  $n^{\text{th}}$  term of this sequence.

	4	13	26	43	64
$2n^2$	2	8	18	32	50
$3n-1$	2	5	8	11	14

$$2n^2 + 3n - 1$$

(Total for Question 1 is 3 marks)

2 Here are the first five terms of a quadratic sequence.



$$\frac{6}{2} = 3$$

Find an expression, in terms of  $n$ , for the  $n^{\text{th}}$  term of this sequence.

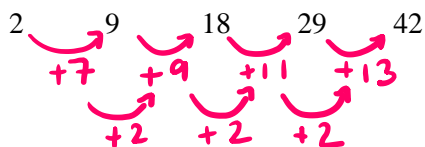
	7	18	35	58	87
$3n^2$	3	12	27	48	75
$2n+2$	4	6	8	10	12

$$3n^2 + 2n + 2$$

(Total for Question 2 is 3 marks)



3 Here are the first five terms of a quadratic sequence.



$$\frac{2}{2} = 1$$

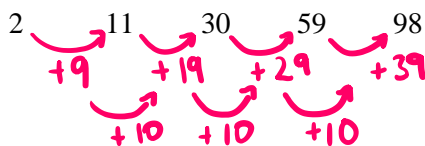
Find an expression, in terms of  $n$ , for the  $n$ th term of this sequence.

	2	9	18	29	42
$n^2$	1	4	9	16	25
$4n-3$	1	5	9	13	17

$$n^2 + 4n - 3$$

(Total for Question 3 is 3 marks)

4 Here are the first five terms of a quadratic sequence.



$$\frac{10}{2} = 5$$

Find an expression, in terms of  $n$ , for the  $n$ th term of this sequence.

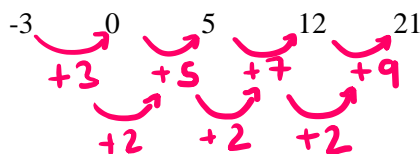
	2	11	30	59	98
$5n^2$	5	20	45	80	125
$-6n+3$	-3	-9	-15	-21	-27

$$5n^2 - 6n + 3$$

(Total for Question 4 is 3 marks)



5 Here are the first five terms of a quadratic sequence.



$\frac{2}{2} = 1$

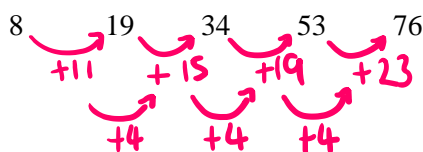
Find an expression, in terms of  $n$ , for the  $n$ th term of this sequence.

	$-3$	$0$	$5$	$12$	$21$
$n^2$	$1$	$4$	$9$	$16$	$25$
$-4$	$-4$	$-4$	$-4$	$-4$	$-4$

$n^2 - 4$

(Total for Question 5 is 3 marks)

6 Here are the first five terms of a quadratic sequence.



$\frac{4}{2} = 2$

Find an expression, in terms of  $n$ , for the  $n$ th term of this sequence.

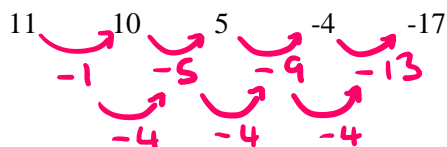
	$8$	$19$	$34$	$53$	$76$
$2n^2$	$2$	$8$	$18$	$32$	$50$
$5n+1$	$6$	$11$	$16$	$21$	$26$

$2n^2 + 5n + 1$

(Total for Question 6 is 3 marks)



7 Here are the first five terms of a quadratic sequence.



$$\frac{-4}{2} = -2$$

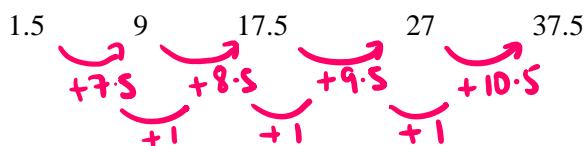
Find an expression, in terms of  $n$ , for the  $n$ th term of this sequence.

	11	10	5	-4	-17
$-2n^2$	-2	-8	-18	-32	-50
$5n+8$	13	18	23	28	33

$$-2n^2 + 5n + 8$$

(Total for Question 7 is 3 marks)

8 Here are the first five terms of a quadratic sequence.



$$\frac{1}{2} = 0.5$$

Find an expression, in terms of  $n$ , for the  $n$ th term of this sequence.

	1.5	9	17.5	27	37.5
$0.5n^2$	0.5	2	4.5	8	12.5
$6n-5$	1	7	13	19	25

$$0.5n^2 + 6n - 5$$

(Total for Question 8 is 3 marks)

