

Silver Wilf : to identify number sequences and to calculate the nth term using times table support

Name:

Date:

Finding the nth term of a sequence

			Difference	n th term	Extension: 10 th term
Q1	<i>Times table of the 'difference'</i>				
	Sequence	3, 5, 7, 9, 11...	2	$2n + 1$	21

			Difference	n th term	Extension: 10 th term
Q2	<i>Times table of the 'difference'</i>				
	Sequence	5, 8, 11, 14, 17...	3	$3n + 2$	32

			Difference	n th term	Extension: 10 th term
Q3	<i>Times table of the 'difference'</i>				
	Sequence	8, 13, 18, 23, 28...	5	$5n + 3$	53

			Difference	n th term	Extension: 10 th term
Q4	<i>Times table of the 'difference'</i>				
	Sequence	6, 9, 12, 15, 18...	3	$3n + 3$	33

			Difference	n th term	Extension: 10 th term
Q5	<i>Times table of the 'difference'</i>				
	Sequence	1, 6, 11, 16, 21...	5	$5n - 4$	46

			Difference	n th term	Extension: 10 th term
Q6	<i>Times table of the 'difference'</i>				
	Sequence	4, 10, 16, 22, 28...	6	$6n - 2$	58

			Difference	n^{th} term	Extension: 10^{th} term
Q7	Times table of the 'difference'				
	Sequence	5, 15, 25, 35, 45...	10	$10n - 5$	95

			Difference	n^{th} term	Extension: 10^{th} term
Q8	Times table of the 'difference'				
	Sequence	0, 3, 6, 9, 12...	3	$3n - 3$	27

			Difference	n^{th} term	Extension: 10^{th} term
Q9	Times table of the 'difference'				
	Sequence	2, 11, 20, 29, 38...	9	$9n - 7$	83

			Difference	n^{th} term	Extension: 10^{th} term
Q10	Times table of the 'difference'				
	Sequence	1, 9, 17, 25, 33...	8	$8n - 7$	73

			Difference	n^{th} term	Extension: 10^{th} term
Q11	Times table of the 'difference'				
	Sequence	-2, 1, 4, 7, 10...	3	$3n - 5$	25

			Difference	n^{th} term	Extension: 10^{th} term
Q12	Times table of the 'difference'				
	Sequence	-1, 3, 7, 11, 15	4	$4n - 5$	35

Extension: In your book, work out the n^{th} terms for these sequences:

Q13: 4, 9, 14, 19, 24... $5n - 1$

Q14: 5, 12, 19, 26, 33... $7n - 2$

Q15: -2, 4, 10, 16, 22... $6n - 8$