



Q	Answer	Marks
1	a) 13 and 21 b) 34 and 16 c) 24	3
2	a) 18 b) add 7 c) 4th (position 4) d) Arithmetic: it goes up by the same amount (7) each time	4
3	a) 7, 11, 19, 35 b) 50, 42, 34, 26, 18	3
4	a) 125 b) 1000 c) open: 5 cubed = 125 and 6 cubed = 216, and 200 lies between them	3
5	a) open: the amount added increases by 1 each time (add 2, add 3, add 4, ...) b) 21 and 28	3
6	$4n + 1$	2
7	$23 - 3n$	2
8	a) 7, 11, 15 and the 20th term is 83 b) 28, 26, 24	3
9	a) Pattern 4: a row of 5 tiles with a row of 4 tiles on top (9 tiles) b) 21 c) $2n + 1$	4
10	Every term of the sequence ends in 2 or 7, and 81 ends in 1	2
11	a) 57 b) Yes, $5n - 3 = 122$ gives $n = 25$, a whole number	3
12	a) $7n - 4 = 150$ gives $n = 22$, a whole number, so it is the 22nd term b) No: $7n - 4 = 200$ gives $n = 29.14...$, not a whole number c) 101	4

Full worked solutions, written out by hand, are on the solutions sheet for this topic.