

Linear Sequences Mark Scheme		
1(a)	27	[1]
	31	[1]
1(b)	Difference between terms is 4. OR; $n^{\text{th}} \text{ term} = 4n + 1$ OR you add 4 to get to the next term	[1] – accept any mathematically correct answer
2(a)	4	[1] – for correct first term
	4, 6, 8, 10, 12	[1] – for sequence increasing by 2
2(b)	202	[1]
2(c)	The numbers in the sequence are all even.	[1]
3(a)	25	[1]
3(b)	$4n$	[1] – for correct multiplier
	$n^{\text{th}} \text{ term} = 4n + 1$	[1] - for correct linear increment
3(c)	$4(47) + 1 = 189$	[1]
4(a)	33	[1]
4(b)	$6n$	[1] – for correct multiplier
	$n^{\text{th}} \text{ term} = 6n - 3$	[1] for correct linear increment
4(c)	$6(9) - 3 = 51$	[1]
5(a)	2,	[1] – for correct first term
	6, 10, 14, 18	[1] – for sequence increasing by 4
5(b)	$4n - 2 = 82$	[1] – for method
	$4n = 84 \therefore n = 21$	[1] – correct answer
5(c)	The sequence increment is 4, 78 and 82 are in sequence, 80 cannot be.	[1] – accept any mathematically correct answer
6(a)	8	[1]
	10	[1] – implies understanding of sequence
6(b)	$n^{\text{th}} \text{ term} = 2t + 2$	[1] – for finding the $n^{\text{th}} \text{ term}$
	$2t + 2 = 115$	[1] – for method
	$2t = 113 \therefore t = 56.5 \therefore 57 \text{ tables}$	[1] – correct number of tables and chairs
	$Cost = (57 \times 10) + (115 * 2) = 570 + 230 = \text{£}800.00$	[1] – correct answer

END