1	$a + 6d = 6$ correct	M1		
	$30 = \dfrac{10}{2}(2a + 9d)$ correct o.e.	M1		
	elimination using their equations	M1f.t.	Two equations in a and d	
	$a = -6$ and $d = 2$	A1		
	5th term = 2	A1		5

2	$a = 4$, $r = 1/2$ identified	B1	Stated or identified by correct use	
	2^{-17}	T2	M1 20th term = their(a)x$(their\ r)^{19}$	
	8	S2	M1 S = their $(a) / (1 - their\ (r))$	5

3	4, 7, 10, 13, 16 ignore extras	B1	For showing 1st four or 2nd four terms	
	15250	B4	B1 for d = 3 soi	
			B1 for $a = 4$ soi	5
			M1 for use of $100/2[2a + 99d]$ o.e.	

4	i	81	1		1
	ii	$(1x)3^{n-1}$	1		1
	iii	(GP with) $a = 1$ and $r = 3$	M1	or M1 for = $1+3+9+ ... +3^{n-1}$	
		clear correct use GP sum formula	M1		2
	iv	(A) 6 www	2	M1 for $364 = (3^n - 1)/2$	
		(B)	1		3
	v	their (ii) > 900	M1ft	-1 once for = or < seen: condone	
		$(y - 1)\log 3 > \log 900$	M1ft	wrong letter / missing brackets / no	
		$y - 1 > \log 900 \div \log 3$	M1	base	
		$y = 8$ cao	B1		4