

Q	Marking instructions	AO	Marks	Typical solution
4	Takes logs of both sides to same base PI by $x - 2 = \log_5 7^{1570}$	1.1b	B1	$\log_5 (5^{x-2}) = \log_5 7^{1570}$ $x - 2 = 1570 \log_5 7$ $x = 2 + 1570 \log_5 7$ $= 1900.23$
	Uses $\log A^n = n \log A$ PI by $x - 2 = \log_5 7^{1570}$	1.1a	M1	
	Completes a reasoned argument using logarithms to obtain AWR 1900	2.1	R1	
	Question 4 Total		3	