

5	(a)		$B = 31$	B1		
				[1]		

Question			Answer	Marks	Guidance
5	(b)		$71 = A \ln 12 + 31$	M1	
			$A = 16$	A1	CAO May see 16.097...A0
				[2]	
5	(c)		79 or 78.9 or better	B1	from $16 \ln 20 + 31$ and 78.9317 Condone 79.2... from unrounded value of A
				[1]	
5	(d)		$120 = 16 \ln X + 31$	M1	FT their A and B ; allow sign error
			$\exp(\text{their } \frac{120-31}{16})$	M1	Allow slip in rearrangement
			awrt $X = 260$	A1	CAO $A = 16.097...$ leads to 250, A0.
				[3]	