Question			Answer	Marks	AO	Guidance	
5	**(a)**		scale factor 4	**B1**	**1.1**	Allow s.f. or 'factor' but not just 4 or 4 units or 'scale factor 4 units'	Comments MUST refer to a stretch otherwise **B0B0**
			parallel to the y-axis	**B1**	**2.5**	oe e.g. allow in the y-direction, vertically, vertically upwards, vertical stretch, in the vertical direction, positive y-direction, parallel to the positive y-axis but not just upwards or in/on/about/across/through/along/towards the y-axis	If **B0B0** then **SCB1** for re-writing as $(y =)4\left(2^{3x}\right)$
				[2]			
5	**(b)**		$2^{3x+2} - 2^{3x} = 36$	**B1**	**1.1**	For the correct equation in x	Or $4y_A - y_A = 36 \Rightarrow y_A = 12$
			$2^{3x} = 12 \Rightarrow \log\left(2^{3x}\right) = \log 12$	**M1**	**1.1**	Simplify to $2^{3x} = k$ where $k > 0$ and take logs of both sides (any base)	
			$x = \frac{1}{3}\log_2 12$	**A1**	**1.1**	oe, e.g. $x = \log_2(12^{1/3})$	
				[3]			