Question			Answer	Marks	AO	Guidance	
7	(a)		$\frac{dy}{dx} = 3\left(\frac{y-2}{x-3}\right)$	**M1** **A1** **[2]**	**2.5** **1.1**	Correct left-hand side (including equals sign) and right-hand side must be of the form $\frac{f(y)}{g(x)}$ or $\frac{g(x)}{f(y)}$ cao (oe)	
7	(b)		$\int \frac{1}{y-2}\,dy = 3\int \frac{1}{x-3}\,dx$ $\ln(y-2) = 3\ln(x-3)(+c)$ $(4,3) \Rightarrow c = 0, y-2 = (x-3)^3$ $y = (x-3)^3 + 2$	**M1*** **A1ft** **M1dep*** **A1** **[4]**	**1.1a** **1.1** **1.1** **2.2a**	Separation of variables – dependent on the **M** mark in **(a)** Follow through their differential eq. from **(a)** Attempt to find c and eliminate logs oe (but must be of the form $y = f(x)$)	With an indication of integration Condone no constant
7	(c)		Translation $\begin{pmatrix} 3 \\ 2 \end{pmatrix}$	**B1** **B1ft** **[2]**	**1.1** **1.1**	**B0** if another type of transformation stated or if shift/move etc. used Follow through their $y = (x-p)^3 + q$ - **B0** if this transformation is given as a stretch/rotation/reflection/enlargement etc. (but condone no transformation stated or shift/move etc.) – need not be given as a vector	$p, q \neq 0$