4	(i)		$\frac{dy}{dx} = 1 - \frac{1}{(x-2)^2}$	M1	1.1a	Attempt to differentiate with one term correct	
				A1	1.1	Correct derivative	
			$1 - \frac{1}{(x-2)^2} = 0$ at stationary points	M1	1.1a		
			$x - 2 = \pm 1$ so $x = 1, \quad 3$	A1	2.2a	Both values of x	
			(1, −5) (3, −1)	A1	1.1	Both values of y - ft *their* x	
				[5]			

Question			Answer	Marks	AOs	Guidance
4	(ii)		$\frac{d^2y}{dx^2} = \frac{2}{(x-2)^3}$	M1	1.1a	
			$x = 3$ $\frac{d^2y}{dx^2} > 0$ (2) so minimum	A1	2.4	
			$x = 1$ $\frac{d^2y}{dx^2} < 0$ (-2) so maximum	A1 [3]	2.4	OR Allow consideration of gradient either side of stationary point for **M1** Correct gradients above and below each tp **A1** Correct convincing conclusions (possibly with sketches) **A1** x f'(x) x f'(x) 0.5 0.56 2.5 -3.00 0.6 0.49 2.6 -1.78 0.7 0.41 2.7 -1.04 0.8 0.31 2.8 -0.56 0.9 0.17 2.9 -0.23 1 0.00 3 0.00 1.1 -0.23 3.1 0.17 1.2 -0.56 3.2 0.31 1.3 -1.04 3.3 0.41 1.4 -1.78 3.4 0.49 1.5 -3.00 3.5 0.56
4	(iii)		$x = 2$	B1 [1]	1.2	

Question			Answer	Marks	AOs	Guidance	
4	(iv)		$x > 2$	A1 [1]	2.2a		FT *their* (iii) if region is to right of *their* x value