

5	(a)	$4x + 3x \frac{dy}{dx} + 3y + 2y \frac{dy}{dx} = 0$	M1 A1	1.1a 1.1	Attempt at implicit differentiation. Either $3x \frac{dy}{dx} + 3y$ or $2y \frac{dy}{dx}$ correct. Condone $\frac{dy}{dx} =$ for M1 All correct
		$3x \frac{dy}{dx} + 2y \frac{dy}{dx} = -4x - 3y$ $\frac{dy}{dx} = -\frac{4x + 3y}{3x + 2y}$	E1 [3]	2.1	AG At least one step of working needed to achieve convincing completion.
5	(b)	DR $\frac{dy}{dx} = 0 \Rightarrow y = -\frac{4x}{3} \text{ or } x = -\frac{3y}{4}$ $2x^2 - 4x^2 + \frac{16x^2}{9} + 2 = 0$ Or $\frac{9}{8}y^2 - \frac{9}{4}y^2 + y^2 + 2 = 0$ $\frac{2x^2}{9} = 2 \Rightarrow x = \pm 3$ Or $-\frac{1}{8}y^2 = -2 \Rightarrow y = \pm 4$ (3, -4) and (-3, 4)	M1 M1 A1 A1	3.1a 1.1 1.1 1.1	Finding y in terms of x (or vice versa) Condone sign errors for M1 Substitution into equation of curve to get equation in x (or y) Both values – some working needed nfw (eg sign error in first line) Both points as coordinates. Dep on M2A1 . A0 if extra values