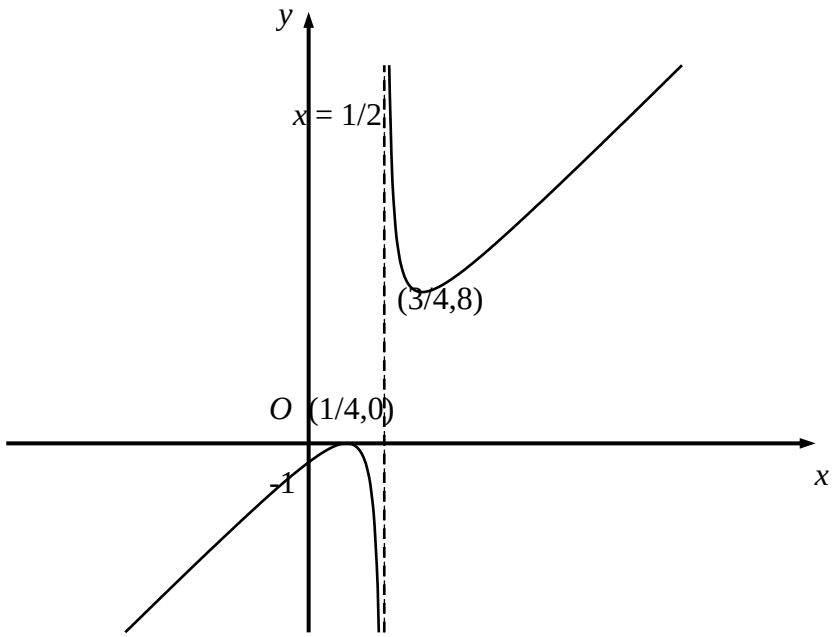
Question Number	Scheme	Marks
10 (a)	$x = \frac{1}{2}$	B1 (1)
(b)	$\frac{dy}{dx} = 8 - 2(2x-1)^{-2}$	M1A1
	$2(2x-1)^{-2} = 8$	
	$2x-1 = \pm\frac{1}{2} \quad x = \frac{3}{4},\ x = \frac{1}{4}$ *	M1A1A1cso
	$\frac{d^2y}{dx^2} = 8(2x-1)^{-3}$	M1A1
	Establish sign of $\frac{d^2y}{dx^2}$ at $x = \frac{3}{4}, \quad x = \frac{1}{4}$	dM1
	$\therefore$ min at $x = \frac{3}{4}$ max at $x = \frac{1}{4}$	A1cso (9)
(c)	(i) $x = \frac{3}{4} \quad y = 8$	B1
	(ii) $x = \frac{1}{4} \quad y = 0$	B1
	(iii) $x = 0 \quad y = -1$	B1 (3)
(d)		B1 2 branches B1ft asymptote B1ft Max/min & *y* intercept (3)
		[16]