6 **(a)** Determine the **two** real roots of the equation $8x^6 + 7x^3 - 1 = 0$. **[3]**

(b) Determine the coordinates of the stationary points on the curve $y = 8x^7 + \frac{49}{4}x^4 - 7x$. **[4]**

(c) For each of the stationary points, use the value of $\frac{d^2y}{dx^2}$ to determine whether it is a maximum or a minimum. **[4]**