

8 A curve is such that $\frac{dy}{dx} = -x^2 + 5x - 4$.

(i) Find the x -coordinate of each of the stationary points of the curve.

[2]

[illegible]

(ii) Obtain an expression for $\frac{d^2y}{dx^2}$ and hence or otherwise find the nature of each of the stationary points. [3]

[illegible]

(iii) Given that the curve passes through the point $(6, 2)$, find the equation of the curve.

[4]

[illegible]