9 A curve is such that $\dfrac{dy}{dx} = \sqrt{(4x+1)}$ and $(2, 5)$ is a point on the curve.

  (i) Find the equation of the curve. [4]

(ii) A point P moves along the curve in such a way that the y-coordinate is increasing at a constant rate of 0.06 units per second. Find the rate of change of the x-coordinate when P passes through $(2, 5)$. [2]

(iii) Show that $\dfrac{d^2y}{dx^2} \times \dfrac{dy}{dx}$ is constant. [2]