

7 A curve is such that  $\frac{dy}{dx} = \frac{6}{\sqrt{4x-3}}$  and  $P(3, 3)$  is a point on the curve.

(i) Find the equation of the normal to the curve at  $P$ , giving your answer in the form  $ax + by = c$ . [3]

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