

6 Given that $y = x^2\sqrt{(2x-3)}$

(a) show that $\frac{dy}{dx} = \frac{x(5x-6)}{\sqrt{(2x-3)}}$ (4)

(b) find the value of $\frac{dy}{dx}$ when $x = 2$ (1)

The curve C has equation $y = x^2\sqrt{(2x-3)}$

(c) Find an equation of the normal to C at the point on C where $x = 2$
Give your answer in the form $ax + by + c = 0$, where a , b and c are integers. (5)

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(Total for Question 6 is 10 marks)

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