

5 (a) Given that $y = x\sqrt{x}$, find $\frac{dy}{dx}$

[2 marks]

5 (b) The line, L , has equation $6x - 2y + 5 = 0$

L is a tangent to the curve with equation $y = x\sqrt{x} + k$

Find the value of k

[5 marks]