13 A curve **C** has equation $y = x^3 - x^2 - 8x + 12$

(a) Find $\frac{dy}{dx}$

$\frac{dy}{dx} =$

(2)

The curve **C** has two turning points.

(b) Work out the x coordinates of the two turning points.
Show your working clearly.

(3)

(c) Show that the x-axis is a tangent to the curve **C**.

(2)

(Total for Question 13 is 7 marks)

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