

6 The curve C has equation

$$y = 4\sqrt{x}$$

The point A on C has coordinates $(9, 12)$

The tangent to C at the point A meets the x -axis at the point T

(a) Find the coordinates of T

(5)

The normal to C at the point A meets the x -axis at the point N

(b) Find the coordinates of N

(4)

(c) Calculate the area of triangle ATN

(2)

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Question 6 continued

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(Total for Question 6 is 11 marks)

P 6 6 3 0 7 A 0 1 7 3 2