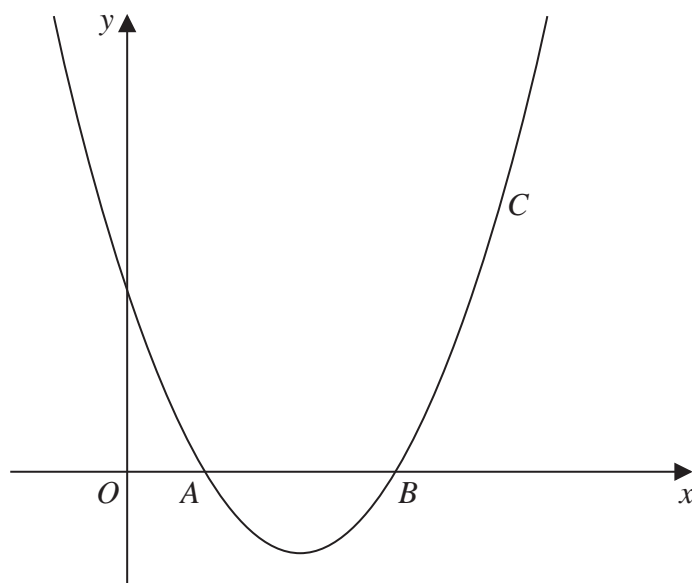**6**

y

C

O   A   B   x

Diagram **NOT**
accurately drawn

Figure 3

The curve C with equation $y = x^2 - 5x + 4$ crosses the x-axis at the points A and B, as shown in Figure 3

(a) Find the coordinates of A and the coordinates of B.

(3)

The tangent to C at A meets the tangent to C at B at the point T.

(b) Find the coordinates of T.

(6)

The normal to C at A meets the normal to C at B at the point N.

(c) Find the coordinates of N.

(3)

(d) Find the area of the quadrilateral $ATBN$.

(3)

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Question 6 continued

Question 6 continued

Question 6 continued

(Total for Question 6 is 15 marks)