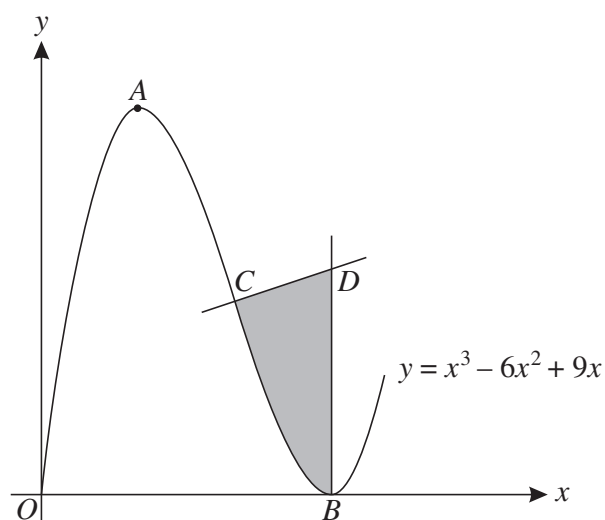


11



The diagram shows the curve $y = x^3 - 6x^2 + 9x$ for $x \geq 0$. The curve has a maximum point at A and a minimum point on the x -axis at B . The normal to the curve at C ($2, 2$) meets the normal to the curve at B at the point D .

- (i) Find the coordinates of A and B . [3]
- (ii) Find the equation of the normal to the curve at C . [3]
- (iii) Find the area of the shaded region. [5]