

14.

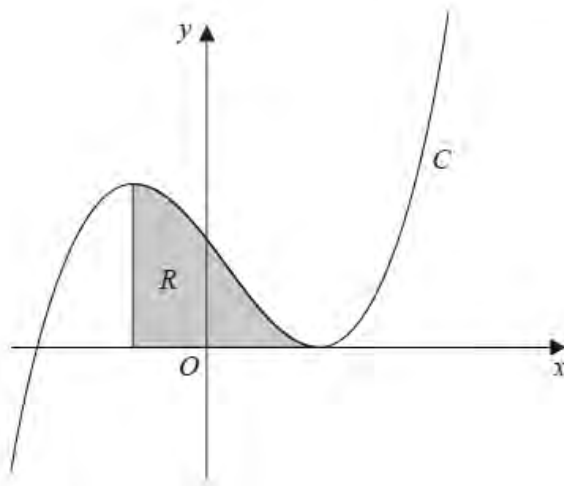


Figure 5

Figure 5 shows a sketch of the curve C with equation $y = (x - 2)^2(x + 3)$.

The region R , shown shaded in Figure 5, is bounded by C , the vertical line passing through the maximum turning point of C and the x -axis.

Find the exact area of R .

(Solutions based entirely on graphical or numerical methods are not acceptable.)

(Total for Question 14 is 9 marks)