

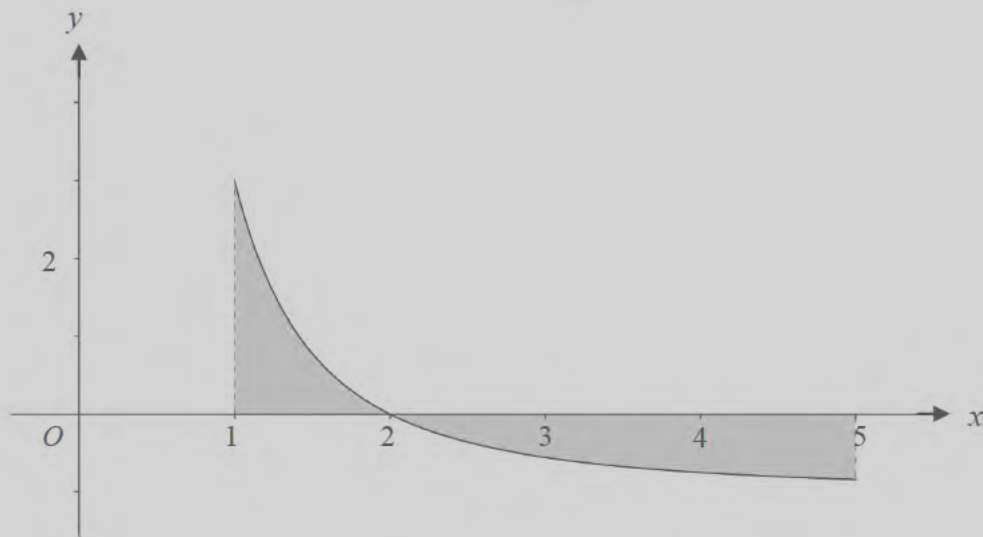
5 (a) Find $\int (x^3 - 6x) dx$.

[3]

(b) (i) Find $\int \left(\frac{4}{x^2} - 1 \right) dx$.

[3]

(ii) The diagram shows part of the curve $y = \frac{4}{x^2} - 1$.



The curve crosses the x -axis at $(2, 0)$.

The shaded region is bounded by the curve, the x -axis, and the lines $x = 1$ and $x = 5$.

Calculate the area of the shaded region.

[3]