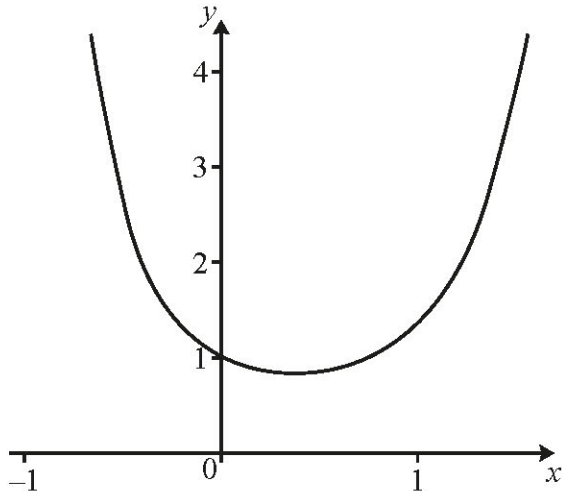


- 10 The diagram shows part of the graph of the function $y = \frac{e^{x^2}}{x+1}$ which is defined for $x > -1$.



- (a) Find an expression for $\frac{dy}{dx}$. [3]
- (b) Determine the range of values of x where the gradient of the function is negative. [3]
- (c) Use the trapezium rule with 4 strips to estimate the area of the region bounded by the curve, the axes and the line $x = 1$. [3]
- (d) Determine whether the estimate in part (c) is an under- or over-estimate. Give a reason for your answer. [1]