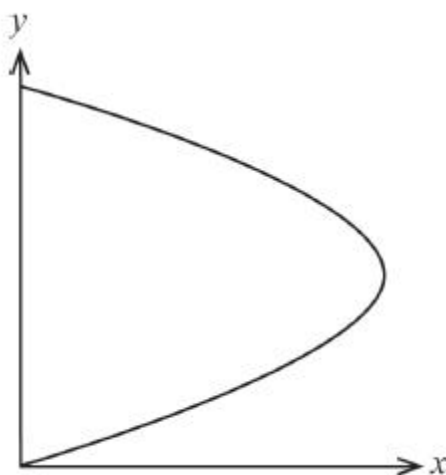


**Question 13****(5 marks)**

The graph of the curve  $2x = \sin(y)$  is sketched for  $0 \leq y \leq \pi$ .



- (a) Determine the expression for  $\frac{dy}{dx}$  in terms of  $y$ . (2 marks)

- (b) Determine the area of the region bounded by the curve  $2x = \sin(y)$  and the  $y$  axis. (3 marks)