

5.

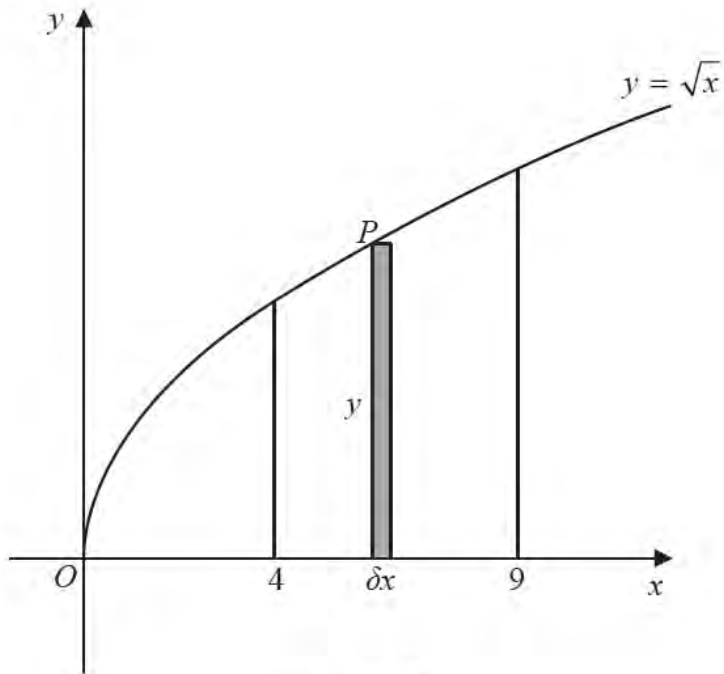


Figure 3

Figure 3 shows a sketch of the curve with equation $y = \sqrt{x}$.

The point $P(x, y)$ lies on the curve.

The rectangle, shown shaded on Figure 3, has height y and width δx .

Calculate

$$\lim_{\delta x \rightarrow 0} \sum_1^{16} \sqrt{x} \delta x$$

(Total for Question 5 is 3 marks)