

**TOPIC**

Mathematics – Section I – Question 1

**QUESTION**The length of the curve  $y = x^2$  from  $x = 0$  to 3 most nearly is

(A) 3.000

(B) 9.000

(C) 9.487

(D) 9.747

**HINT**The length of a curve  $y(x)$  from  $x = a$  to  $b$  is given by

$$s = \int_a^b \sqrt{1 + \left(\frac{dy}{dx}\right)^2} dx$$