Math 101 (Term 173) – Quiz 4

Student Name_____ **Student ID:** _____

Exercise 1 [**3 points**]

If the position of a particle is given by the equation $s(t) = 4t^3 - 18t^2 + 24t$, where t is measured in seconds and s in meters, find the total distance traveled by the particle during the time interval $[0,2]$.

Exercise 2 [**3 points**]

If $g(x) + x \cos g(x) = x^2$; find $g'(0)$.

Exercise 3 [**4 points**]

If $y = x^{sinx}$; find $y'(\pi)$.