

July 06,2011

QUIZ#1 Math102, sec 6

Net Time Allowed: 20 minutes

Name:

ID #:

Serial:

Exercise1:

Evaluate the Riemann sum for $f(x) = \sin x$, $\pi \leq x \leq 2\pi$ with four sub-internals, taking the sample points to be the right end points.

Exercise2:

Show that

$$\int_0^{\frac{\pi}{2}} \frac{8}{3} x \sin x dx \leq \frac{\pi^2}{3}$$

Exercise3:

If g is a continuous function on $[-3, t]$ such that: $\int_{-3}^t e^{-x}g(x)dx = -3 + t \sin t$, then find g .

Exercise4:

Show that

$$\int_3^7 \frac{x dx}{x^2 - 4} = \frac{3}{2} \ln 3$$