

QUIZ#1 Math102, sec 12**Net Time Allowed: 20 minutes****Name:****ID #:****Serial:****Exercise1:**

Let f be a continuous function on $[-1, x]$ with $f(-1) = 0$, F, G two differentiable functions such that:

$$F(x) = \int_{-1}^x f(t) dt \text{ and } G(u) = \int_{-1}^u e^{-t} F(t) dt.$$

Find $G'(-1) + G''(-1)$.

Solution:**Exercise2:**

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