October 4,2016

QUIZ♯1 Math102-sec 13.

Net Time Allowed: 20 minutes

Name: **ID ♯ :** **Serial ♯:**

Exercise1:(05 points)

Evaluate $$S = \lim_{n \longrightarrow \infty} \Big[\frac{10}{n} \sum_{i=1}^{n} \sqrt{\frac{10\,n + 4\,i}{2\,n}} \ \Big] \ .$$

(**Justify clearly your answer!**)

Exercise2:(05 points)

If f is a continuous function on $[a,\, 2\,t]$, a is a constant, such that :

$\int_a^{2t} \cos(\frac{x}{2})\, g(x)\, dx \ = \ a \ + \frac{t}{2} \sin t$, then find $g(2\,\pi)$. **Justify your answer !**