October 4,2016

QUIZ♯1 Math102-sec 05.

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 g is a continuous function on $[-\frac{1}{2},\, 2\,t]$ such that : $\displaystyle\int_{-\frac{1}{2}}^{2t} \cos(\frac{x}{2})\, g(x)\, dx \,=\, -\frac{1}{2} + \frac{t}{2}\, \sin\, t,$ then find $g(2\,\pi)$. **Justify your answer !**