February 22,2018

QUIZ♯2   Math102

Net Time Allowed: 20 minutes

Name: **ID ♯ :**   **Serial ♯:**

(**Justify clearly your answer !**)

Exercise1:(05 points)

Evaluate $\displaystyle\int_{\frac{\pi}{2}}^{\pi} \sqrt{1 - \sin^2 t}\ dt.$

Exercise2:(05 points)
The base of a solid is bounded by the curves $y = e^x, y = 0, x = 0$ and $x = 1$. If the cross sections, perpendicular to the $x-$axis, are **semicircles**, then find the volume of the solid.
(sketch the graph and a typical cross section !)