**QUIZ♯2   Math102-sec 12.**

**Net Time Allowed: 25 minutes**

**Name:**                    **ID ♯ :**                    **Serial ♯:**

**Exercise1:**(05 points)

Evaluate    $\displaystyle\int \sqrt{\frac{1}{x} + \frac{1}{\sqrt{x}}}\, dx$                    (**Justify clearly your answer!**)

**Exercise2:**(05 points)

Find the **slope** of the tangent line to the curve $y = \displaystyle\int_{3}^{\sec x} \frac{\sqrt{t^2 - 1}}{t}\, dt, \quad 0 < x < \frac{\pi}{2},$
at $x = \frac{\pi}{3}$.   **Justify your answer !**