Math 101

Quiz#6

_____

10

Name:

ID No.:

Serial No.:

1- Find the limit if it exists ,

$$\lim_{x\to 0^+}(\csc x - \cot x + \cos x)$$

2- Designing a poster: You are designing a rectangular poster to contain $50\ cm^2$ of printing with a $4-cm$ margin at the top and bottom and $a\ 2-cm$ margin at each side. What overall dimensions will minimize the amount of paper used?

3- Approximate the x −coordinates of the intersections of the curve $y = x^3$ with the line $y = 3x + 1$.
(Use Newton method with $x_0 = 0$ to just find x_2)

4- Find $\int (\tan\theta)^2 d\theta$. (using identity)