

MATH 101-09 Quiz #3

Name:.....**ID:**.....

Exercise #1: Show that the equation $2x + \cos x = 0$ has exactly one real root.

Exercise #2: Let $f(x) = x^3 - 3x^2 - 9x + 4$

- a) Find the intervals on which f is increasing or decreasing.
- b) Find the local maxima and minima of f .
- c) Find the intervals of concavity and the inflection points of f .