## MATH 101-09 Quiz #4 Name:......ID:....

**Exercise #1:** Let  $f(x) = x\sqrt{4-x^2}$  on the interval [-2,2], At which point x, f attains its maximum value?

**Exercise #2:** Find a linear approximation of  $f(x) = x \ln x$  around  $x_0 = 2$ .