KF

Math 101 (163)
Quiz 2 (3.1-3.9)

Name: ID #: Section:

1. Find the equation of the tangent line and normal line to the curve of $y = \sin(x + y)$ at $(\pi, 0)$.
2. Find the slope of the tangent line to the curve of $y = x^{\cos x}$ at $x = 1$.
3. Let $f(x) = \ln(x + 1) + \cos x$. Find $(f^{-1})'(1)$.
4. Let $v(t) = 1 - t^2$ be the velocity function of a particle. When is the particle speeding up?
5. The radius of a sphere is increasing at a rate of 0.3 cm/s. How fast is the volume increasing when the radius is 20 cm?