Quiz 7 on Calculus II

Summer 2009

Name: ____________________________

1. Solve the differential equations.
   (a) (6 points)
   \[ \sin x \frac{dy}{dx} + (\cos x)y = \sin(x^2) \]

   (b) (6 points)
   \[ (1 + \tan y)y' = x^2 + 1 \]
2. Find parametric equations of the circle with center \((1, 2)\) and radius 2, traversed in the manner described.

(a) (3 points) Half of the circle traversed counterclockwise, starting at the point \((-1, 2)\)

(b) (3 points) Three times around the circle traversed clockwise, starting at the point \((1, 0)\)