Name: _____

Math 201
Fall 2014, Term 141

Quiz 1 Section 14
Version A

Student ID: _____

Serial Number: _____

Instructions: Show Your Work!

(3pts) **1.** Find parametric equations for the semicircle

$$x^2 + y^2 = 9, \quad y > 0,$$

using the parameter $t = dx/dy$.

(4pts) **2.** Find the length of the curve

$$x = t^2/2, \quad y = (2t+1)^{3/2}/3, \quad 0 \le t \le 4$$

(3pts) **3.** Replace the polar equation with equivalent Cartesian equation.

$$r \sin\theta = \ln r \quad + \quad \ln\cos\theta.$$