MATH141(0332) Calculus II

Quiz 13, Tuesday, December 9, 2008 Name: _____

Show all work clearly and in order, and circle your final answers. Justify your answers algebraically whenever possible. Calculator is not allowed in this quiz. You have 15 minutes to take this 10 point quiz.

1. (*3 points*) Calculate the length of the curve $x^2 - 5x + y^2 = 0$.
(It should be a circle. First calculate the upper have and double the result.)

2. (*3 points*) Calculate the lengh of the curve $r = 5cos(\theta)$.
(It is the same circle as the first one. You answer for these two questions should be the same.)

3. (*4 points*) Find the solution of the initial problem of the following differential equation.

$$x\frac{dy}{dx} - 4y = x; y(1) = 1$$