Math 152 – Fall 2013 – Dr. Linhart – Quiz 6A

1. In the upper right hand corner of this paper put your name, below your name put your UIN, and below your UIN put your section, and don't forget to sign the Aggie Honor Statement.

2. Draw a picture and set up an integral to find the volume of rotation of $f(x) = \dfrac{3}{x^2+9}$ about the x-axis from $x = 0$ to $x = 3$.

   Do Not Integrate. **(2 points)**

3. Perform an appropriate trigonometric substitution and rewrite the integral in terms of θ. **You must change the limits as well as the variable of integration.** Complete problem 4 on the next page, then come back to this one and make straightforward simplifications to this integral as time allows. **Do Not Integrate.** **(4 points)**

More on back!

4. Write out the form that you would use to perform partial fractions on

$$\frac{x^3 + x}{x^5 + 2x^3}$$

You do not need to solve for the partial fractions. **(4 points)**

"An Aggie doesn't lie, cheat or steal, or tolerate those who do."

I did not give or receive any unauthorized aid on this quiz.

Signature: _____

_____

If you have extra time, please write me a note or draw me a picture.