# PHYS 4800 HOMEWORK 02

## DUE DATE: February 12

Instructor: Dr. Daniel Erenso                Name: _____

Declaration:

It am expected to solve all the five problems assigned for this homework set to get a full credit. I have tried all my best to solve all the five problems. I have submitted the solutions of _____Problems. All the solutions are solely the result of my own work. I am also fully aware that only two problems selected by Dr. Erenso will be graded and scored according to the outline given in syllabus.

Signature:_____

| P # | 1 | 2 | 3 | 4 | 5 | Score | F. Score |
|-----|---|---|---|---|---|-------|----------|
| Score | / | / | / | / | / | /100 | /100 |

Prob 1  Problem # 1.5

Prob 2  Problem # 1.3

Prob 3  Problem # 1.4

Prob 4  Problem # 1.16

Prob 5  In Example 2.5, express the circumference (part b) and the area (part c) in terms of the distance $D$ (part a) and determine $D$ for the the maximum circumference and area. Find the maximum circumference and area of this sphere. Is your answer is consistent with what you know about the maximum circumference and surface area of a sphere with radius $a$.