

APPM 1360

Spring 2022

Quiz 4

02/22/2022

Time Limit: 10 Minutes

Name: _____

Recitation Section: _____

1. (10 points) Below, you will verify that the surface area of a sphere is $4\pi R^2$.
 - (a) Write down the formula for a semicircle with radius R that lies above the x -axis and is centered at the origin.
 - (b) Now imagine we rotate this semicircle around the x -axis in order to form a sphere. Set up and evaluate an integral for the surface area.