

Assignment 4 in Differential Geometry of curves and surfaces (Math 439)

due Sep 24, 2012

1. Prove that the set in \mathbb{R}^3 defined by $x^2 + y^2 - z^2 = a$ is a regular surface if $a > 0$. Why doesn't $x^2 + y^2 - z^2 = 0$ define a regular surface?

Section 2.2, pp. 66-68: Exercises 7 *a*, *b*, 11, 12, 16.