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

due to Sep 29, 2010

You can solve 5 exercises to get 100

1. Prove that the set in 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, 13, 16. (7 a, b is counted as one exercise).