

# Homework 7: Isometric Immersions

Differential Geometry I

due Thursday, Nov. 13

1. Chapter 6, problems 1, 2, 6, 8, 11.
2. Determine all solutions to the equation

$$(1 + f_y^2)f_{xx} - 2f_x f_y f_{xy} + (1 + f_x^2)f_{yy} = 0$$

of the form  $f(x, y) = F(r)$  with  $r = \sqrt{x^2 + y^2}$ .