Due: November 18, 2016

MATH 320: HOMEWORK 7

Please read through chapters 14, 15.1-15.3, and 17 in the textbook. Answer the following questions. Please submit all code and output with brief descriptions of what you are doing.

(1) Problem 14.5
(2) Problem 14.34
(3) Problem 15.12
(4) Let $z = f(x, y)$ be a function of two variables.
   Suppose we have the following 6 points:

x	1	1	2	2	3	3
y	2	3	1	3	1	2
z	3	2	3	1	2	1

Find a degree-5 homogeneous polynomial in x and y that includes these six points. Plot the corresponding surface in MATLAB.