Homework 09

1. Section 14.7: Problems 31, 35, 44.

   Hint for problems 31, 35: To find absolute minima and absolute maxima, find all local minimum and local maximum first, by plotting the gradient vectors inside the domain and tangential component of the gradient vectors on the boundary as done in Lecture 18.

   Hint for problem 44: Do this problem using the gradient analysis. That is, plot ∇f near the critical point to determine whether the critical point is a local minimum, local maximum or neither.

2. Section 14.8: Problems 1, 23, 27, 37, 39. Do all these problems by method of Lagrange Multipliers.