Homework 2

Due Oct 5 5pm (submit to Dropbox hw2)

1. The dataset provide hw2\_data1.txt provided, provides two examination scores, Eam1, Exam 2, Status, for each applicant and their correspondent admission decision. 0 is for not admitted and 1 is for admitted. Using this do the following

a. Visualize the data.

X -axis for Exam 1 score,

Y -axis for Exam 2 score, + (plus) for admitted, and circle for not admitted.

b. Implement cost function optimization using gradient descent.

Plot the cost with the number of iterations.

c. Report optimal final parameters θ2 and θ1. Plot the decision boundary with the training data.

d. If a student has an Exam 1 score 100 and an Exam 2 score 50, what

is the admission probability of this student?