Tristan Pitts
Introduction to Machine Learning
Homework 3

1a)


*Figure 1: ps3-1-a.png*

1b)

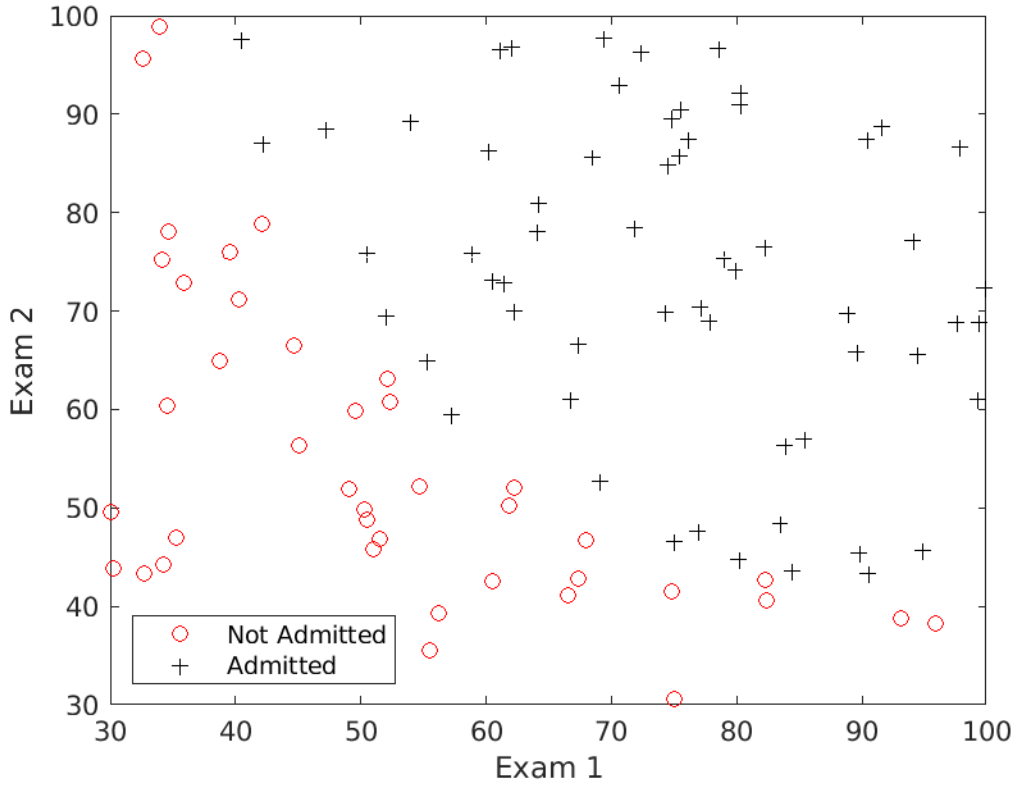


*Figure 2: ps3-1-b.png*

1c)

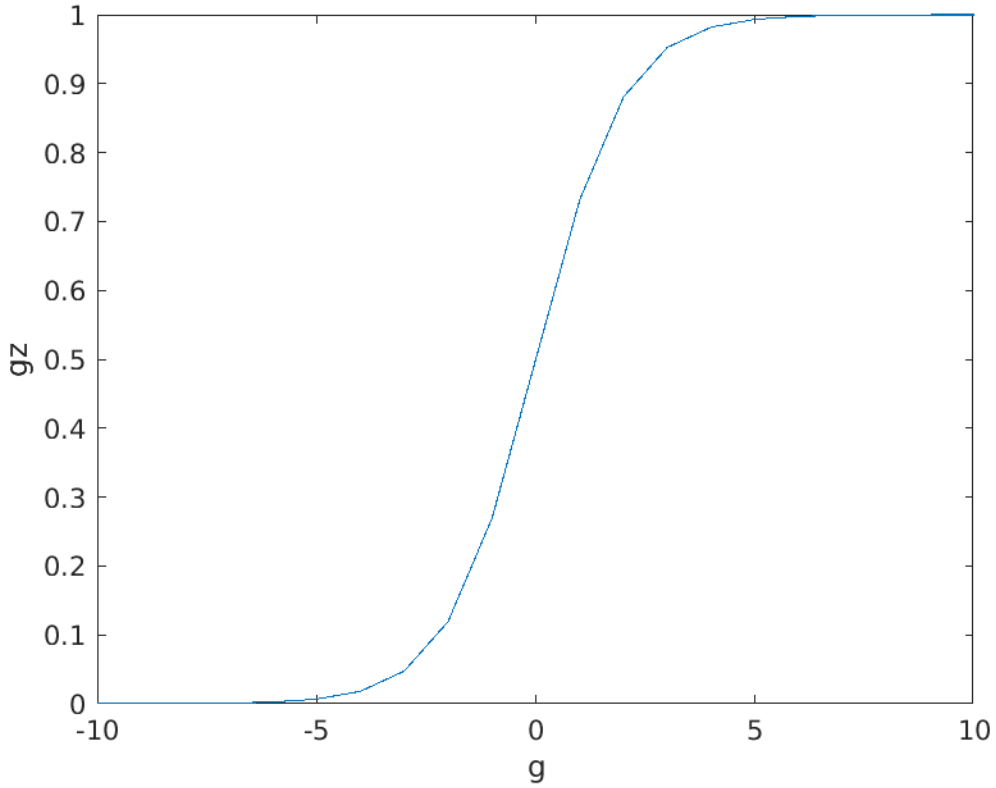


*Figure 3: ps3-1-c.png*

1d)

```
The cost when theta = [0, 0, 0]' is 0.693147
```

*Figure 4: ps3-1-d.png*

1e)

```
The optimal parameters given by the fminunc function are theta(1) = -25.161343, theta(2) = 0.206232 and theta(3) = 0.201472
The cost value at convergence is 0.203498
```

*Figure 5: ps3-1-e.png*

1f)

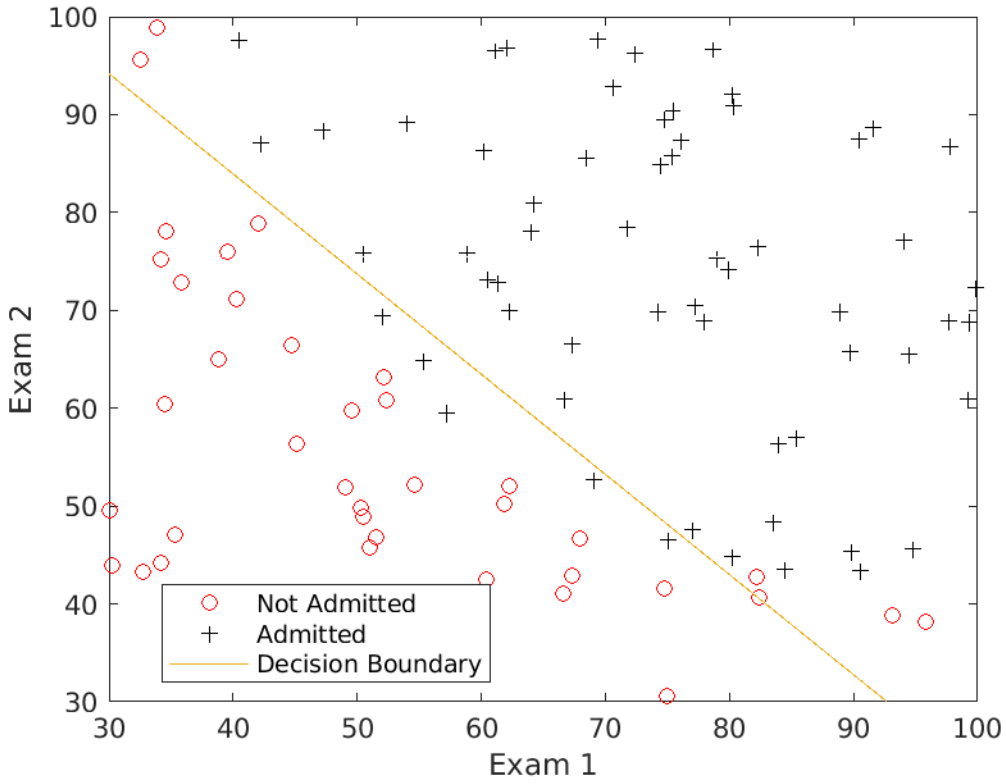


*Figure 6: ps1-1-f.png*

1g)

```
The probablility of the student being admitted is 0.776291
The student will be admitted
```

*Figure 7: ps3-1-g.png*