IT 542: Pattern Recognition and Machine Learning

Assignment 2

1. Draw 200 samples each from N(10,20) and N(20,25).
From these samples calculate sample means and sample variances.
Consider these as the parameters for two new Gaussian distributions.
Consider the apriory probabilities as (0.5,0.5), (0.3,0.7) and (0.7,0.3).

Draw 40 random numbers from [5,20].
Classify each of these random numbers as sample from one of the two
Gaussian distributions obtained from samples using three sets of apriory
probabilities.