Problem 1
a. Accuracy: 0.7712418
b. Accuracy: 0.6862745
c. Accuracy: 0.7059
d. Accuracy: 0.7712418

Problem 2
a.

Accuracy	Gaussian	Bernoulli
Untouched Image	0.54	0.79
Stretched Bounding Box		

Bernoulli is a better choice because having that threshold helper function to convert numeric data into categorical data allows there to be a more distinct difference for features for different labels. Additionally, if I were able to complete the stretched bounding box it would show that the overall accuracy would be higher for the stretched bounding box version of Gaussian and Bernoulli and ultimately Bernoulli for stretched bounding box would have the best accuracy.

b.
Untouched Raw Pixels

Accuracy	depth = 4	depth = 8	depth = 16
#trees = 10	0.8776	0.8761	0.8762
#trees = 20	0.9263	0.9283	0.9266
#trees = 30	0.9402	0.9432	0.944

Stretched Bounding Box

Accuracy	depth = 4	depth = 8	depth = 16
#trees = 10			
#trees = 20			
#trees = 30			

Although I could not get the stretched bounding box to work because I had issues resizing the image. Conceptually, the accuracy for these tests would be higher for the stretched bounding box because you are cleaning the image more with preprocessing. Additionally, the trend would hold that the more #trees you have the higher accuracy you would get. If I were to fill out the data for the stretched bounding box, the accuracy values would be higher as I increase #trees and in general be a little higher than the untouched raw pixels

Citations:
1. Professor Forsyth's code snippets
2a. http://api.rpubs.com/JanpuHou/304506
Used citation in order to help build the Gaussian model and then from there branched out to try building the Bernoulli
2b. https://www.kaggle.com/iammangod96/mnist-digit-recognition-using-simple-randomforest/code
Used citation in order to build the random forest classifier