14. Using a sample of 120, you will do a hypothesis test at the 1% level to see if the mean wait for the MBTA is 7 minutes or if it is more. If the standard deviation is 3 minutes.

a) find the critical value for the test and use it to get a rejection test (you should fill in the following: reject the null hypothesis if…).

b) find the probability of a type I error.

Extra credit 3 points. Find the probability of a type II error and the power if the real mean is 7.8 minutes.

15. A researcher wants to know what percent of heart attack victims are over 6 feet tall. He finds that 22% of the last 1000 people admitted to a hospital for heart attacks were over 6 feet tall.

Do you think the results in the survey will be accurate? Explain.