**Assignment 5.2**

1. Calculate the P Value for the test in Problem 2.

Answer :

qnorm(0.95)

**[1] -1.644854**

2. How do you test the proportions and compare against hypothetical props? Test Hypothesis: proportion of automatic cars is 40%.

Answer:

**When auto cars proportion is 40, then usually our total proportion is 100**

ppois(q=40,lambda = 100)

**[1] 7.519647e-12**

Our test statistic is less than -1.64 so it now falls into the critical region! We now Reject the null hypothesis and conclude that the 1973 data provide evidence that the true proportion of

students admitted to the graduate school of UCB in 1973 was significantly less than 40%.

The data are not consistent with the officer’s claim at the a=0.05 significance level. What is going on, here? If we choose a=0.05 then we reject the null hypothesis, but if we choose a=0.01 then we fail to reject the null hypothesis. Our final conclusion seems to depend on our selection of the significance level. This is bad; for a particular test, we never know whether our conclusion would have been different if we had chosen a different significance level.