Module 16 Homework

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Elk Density in Banff

1. 0.10
2. Ho u= 8 elk, HA<8. U is the mean density of elk.
3. 1 sample z test is required because (i) a quantitative variable (elk per square Km) was measured, (ii) one population was sampled (Elk in Banff National Park) and (iii) σ is thought to be known = 2.
4. The data appears to be an observational study
5. σ is known(=2)
6. X bar=9.406
7. Z=3.464
8. P value=0.2266
9. Ho is not rejected because the p value> 0.10
10. It appears that the mean number of Elk per square km is greater than 8.
11. The confidence region is not computed when Ho is not rejected

Credit Card Limits

1. 0.10
2. Ho= 630, HA<630. u is the mean cut off score for credit cards
3. 1 sample z test (i) quantitative variable (credit card scores), (ii) one population was sampled and (iii) σ is thought to be known =4.42.
4. The data appears to be an observational study.
5. σ is known(=2) and n=44>30.
6. X bar=636.86
7. Z=77.015
8. P-value=0.2266
9. Ho is not rejected because the p value >0.10
10. It appears that the mean credit card cut off score is greater than 630.
11. The confidence region is not computed when Ho is not rejected

R stuff

library(NCStats)

setwd("~/R stuff")

df<-read.csv("Elk.csv")

z.test(df$Elk.Density,mu=8,alternative = "less",conf.level=0.90,sd=2)