1. H0: mu=30, Ha: mu<30

       One Sample t-test

data:  x

t = -2.8497, df = 9, p-value = 0.009549

alternative hypothesis: true mean is less than 30

95 percent confidence interval:

    -Inf 28.45529

sample estimates:

mean of x

    25.67

Since the p-value is less than the .05 confidence interval, we assume true for the alternative hypothesis that the mean of the max temperatures are less than 30 degrees in January.

1. H\_0: p\_1 = p\_2 H\_A: p\_1 != p\_2

prop.test(c(71,64),c(100,100), alternative = "two.sided")

2-sample test for equality of proportions with continuity correction

data: c(71, 64) out of c(100, 100)

X-squared = 0.8205, df = 1, p-value = 0.365

alternative hypothesis: two.sided

95 percent confidence interval:

-0.06946152 0.20946152

sample estimates:

prop 1 prop 2

0.71 0.64

We accept p1 because p-value > .05.

1. H0: x =y Ha: x != y

Welch Two Sample t-test

data: x and y

t = -16.0567, df = 17.984, p-value = 4.166e-12

alternative hypothesis: true difference in means is not equal to 30

95 percent confidence interval:

-9.6137554 -0.4462446

sample estimates:

mean of x mean of y

25.67 30.70

We do not accept x, the p-value is very low and the CI is out of range

1. H0: mu=mu1, Ha: mu1!=mu2

wilcox.test(g1,g2,conf.int=TRUE)

Wilcoxon rank sum test with continuity correction

data: g1 and g2

W = 146, p-value = 0.1703

alternative hypothesis: true location shift is not equal to 0

95 percent confidence interval:

-5.999996 16.999989

sample estimates:

difference in location

6.000018

We accept the alternative because p-value > 0.1

1. N---%

18--0.225

30--0.338

40--0.389

50--0.459

60--0.527

70--0.571

80--0.612

90--0.683

95--0.692

99--0.716

110-0.75

120-0.785

125-0.803

1. Input is n = 725, suc1 = 300, suc2 = 275

depps <- function(s1, s2, n, alt)

{

p1 <- s1/n

p2 <- s2/n

se<- sqrt((p1+p2)/n)av

zed <- (p1-p2)/se

if(alt == “two.sided”)

{

pval <- 2\*(1-pnorm(abs(zed))

}

if(alt==”greater”)

{

pval<-1-pnorm(zed)

}

if(alt==”less”)

{

pval<-1+pnorm(zed)

}