#JACKNIFE COR

x=rnorm(100,0,1)

y=rchisq(100,1)

data=cbind(x,y)

head(data)

jack\_kor = function(data)

{

n=nrow(data)

j=n-1

kor = matrix(nrow=1, ncol=n)

for (i in 1:n)

{

data\_new=data[-i,]

kor[,i] = cor(data\_new[,1],data\_new[,2])

}

korelasi\_boot = mean(kor)

korelasi=cor(data[,1],data[,2])

bias=(n-1)\*(korelasi\_boot-korelasi)

hist(kor)

list(korboot = korelasi\_boot, korelasi=korelasi,bias=bias)

}

jack\_kor(data)

#BOOTSTRAP REG

x=rnorm(100,0,1)

y=rchisq(100,1)

data=cbind(x,y)

bootkoef = function(data, m, R)

{

x = data[,1]

y = data[,2]

n = length(x)

b1 = matrix(nrow=R, ncol=1)

b0 = matrix(R,1)

for (i in 1:R)

{

urut = c(1:n)

posisi = sample(urut,m,replace=T)

datax = x[posisi]

datay = y[posisi]

regresi = lm(datay~datax)

b0[i] = regresi$coefficients[1]

b1[i] = regresi$coefficients[2]

}

par(mfrow=c(1,2))

hist(b0)

hist(b1)

beta\_boot0 = mean(b0)

beta\_boot1 = mean(b1)

C\_bawah0 = beta\_boot0 - (1.96\*sd(b0)/sqrt(R))

C\_atas0 = beta\_boot0 + (1.96\*sd(b0)/sqrt(R))

C\_bawah1 = beta\_boot1 - (1.96\*sd(b1)/sqrt(R))

C\_atas1 = beta\_boot1 + (1.96\*sd(b1)/sqrt(R))

list(betaboot = beta\_boot0, CI\_bawah0=C\_bawah0, CI\_atas0=C\_atas0,

betaboot1 = beta\_boot1, CI\_bawah1=C\_bawah1, CI\_atas1=C\_atas1)

}

bootkoef(data,100,100)