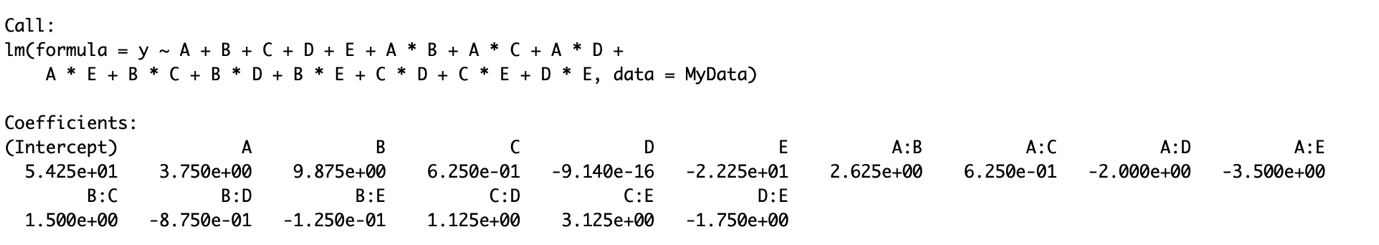
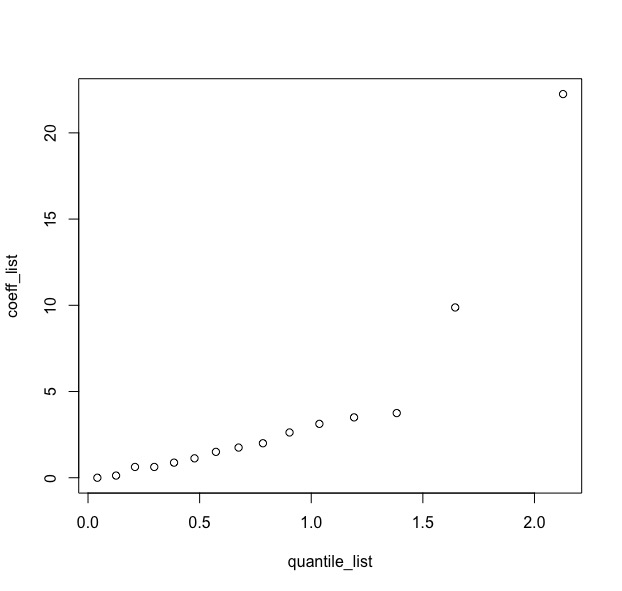
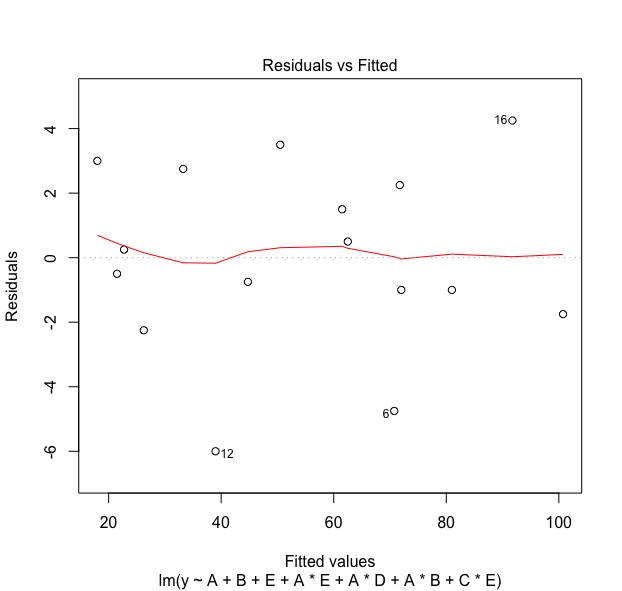
Coefficients:

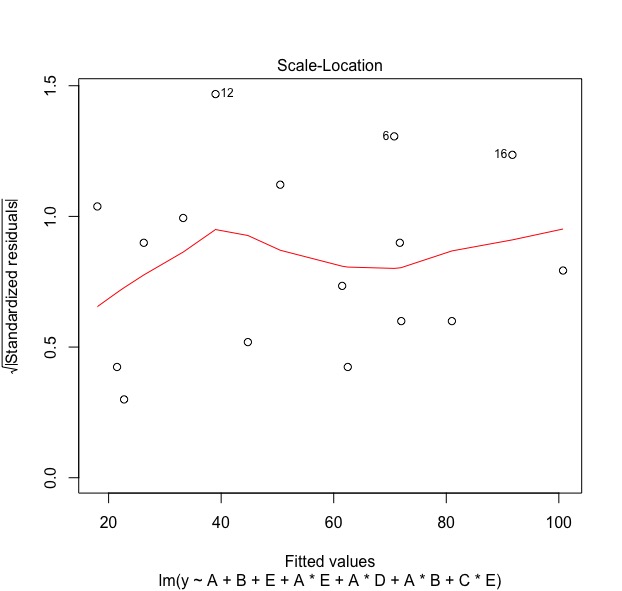


Half Normal Probability Plot



Residual Plot using 2nd model:





Attached Code used in Q4

#DOE HW5 Last Q

MyData <- read.csv(file="Book1.csv", header=TRUE, sep=",")

model2 = lm(formula = y ~ A+B+C+D+E+A\*B+A\*C+A\*D+A\*E+B\*C+B\*D+B\*E+C\*D+C\*E+D\*E, data=MyData)

coeff\_list = sort(abs(model2$coefficients))

coeff\_list = coeff\_list[1:15]

quantile\_list = matrix(0,1,15)

for(i in c(1:15)){

quantile\_list[i] = qnorm(0.5 + (i-0.5)/30)

}

plot(quantile\_list, coeff\_list)

model3 = lm(formula = y ~ A+B+E+A\*E+A\*D+A\*B+C\*E, data=MyData)

plot(model3)