**RStudio Code:**

> b = read.csv("Group\_87.csv")

> plot(b$Y, b$X)

> fit1 = lm(X ~ log(Y), data = b)

> fit2 = lm(X ~ factor(Y), data = b)

> aovB = aov(X ~ log(Y), data = b)

> anova(fit1, fit2)

> summary(aovB)

> confint(fit1, level = 0.99)

**Data Output:**

Analysis of Variance Table

Model 1: X ~ log(Y)

Model 2: X ~ factor(Y)

Res.Df RSS Df Sum of Sq F Pr(>F)

1 1998 1707220

2 0 0 1998 1707220

Df Sum Sq Mean Sq F value Pr(>F)

log(Y) 1 13 13.0 0.015 0.902

Residuals 1998 1707220 854.5

0.5 % 99.5 %

(Intercept) -85.391835 77.349068

log(Y) -6.594694 7.256756