

Quiz4 - MA478

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Researchers are interested in determining the effect of the distance to Santa Cruz island on the number of plant species found on the Galapagos Islands. They fit the following two models:

```
library(faraway)
library(tidyverse)
data(gala)

gala_mod <- gala %>% select(-Endemics) #Removing Endemics

Pois_glm <- glm(Species~Area+Nearest+Scruz+Elevation+I(Elevation^2),data=gala_mod,family=poisson())
deviance(Pois_glm)
```

```
## [1] 505.8116
```

```
Pois2_glm <- glm(Species~Area+Nearest+Elevation+I(Elevation^2),data=gala_mod,family=poisson())
deviance(Pois2_glm)
```

```
## [1] 515.7923
```

From this output, conduct one test to answer this question by completing the following parts:

- Compute the value of a test statistic
- State the approximate null distribution of the test statistic
- Provide a p-value
- State a conclusion