STA 3180 Statistical Modelling: ANOVA

1. Start of Code: Calculate the ANOVA for a linear regression model with two independent variables.

```
# Load the necessary libraries
library(tidyverse)
library(broom)

# Create a linear regression model
model <- lm(y ~ x1 + x2, data = mydata)

# Calculate the ANOVA
anova(model)
```

End of Code

2. Start of Code: Calculate the ANOVA for a linear regression model with three independent variables.

```
# Load the necessary libraries
library(tidyverse)
library(broom)

# Create a linear regression model
model <- lm(y ~ x1 + x2 + x3, data = mydata)

# Calculate the ANOVA
anova(model)
```

End of Code

3. Start of Code: Calculate the ANOVA for a logistic regression model with two independent variables.

```
# Load the necessary libraries
library(tidyverse)
library(broom)

# Create a logistic regression model
model <- glm(y ~ x1 + x2, family = binomial(link = "logit"), data = mydata)

# Calculate the ANOVA
anova(model)
```

End of Code

4. Start of Code: Calculate the ANOVA for a logistic regression model with three independent variables.

```
# Load the necessary libraries
library(tidyverse)
library(broom)

# Create a logistic regression model
```

```
model <- glm(y ~ x1 + x2 + x3, family = binomial(link = "logit"), data = mydata)
# Calculate the ANOVA
anova(model)
End of Code
```

5. Start of Code: Calculate the ANOVA for a poisson regression model with two independent variables.

```
# Load the necessary libraries
library(tidyverse)
library(broom)
# Create a poisson regression model
model <- glm(y ~ x1 + x2, family = poisson(link = "log"), data = mydata)
# Calculate the ANOVA
anova(model)
End of Code
```

6. Start of Code: Calculate the ANOVA for a poisson regression model with three independent variables.

```
# Load the necessary libraries
library(tidyverse)
library(broom)
# Create a poisson regression model
model <- glm(y ~ x1 + x2 + x3, family = poisson(link = "log"), data = mydata)
# Calculate the ANOVA
anova(model)
End of Code
```