

### Loading a Package

```
library(PACKAGE NAME)
```

### Reading in Data

```
NAME OF DATASET <- read_csv("PATH & NAME OF DATASET.csv")
```

**Note:** The name of the dataset will change, but it will always need to have the .csv at the end of its name!

**Note:** Do not put spaces in the name you give the data set.

### Preview a Dataset

```
glimpse(NAME OF DATASET)
```

head(NAME OF DATASET) – shows first 6 rows

names(NAME OF DATASET) – outputs the names of the columns/variables

### Plotting a One Categorical Variable Bar Plot with Counts

```
ggplot(data = NAME OF DATASET,  
  mapping = aes(x = NAME OF VARIABLE)) +  
  geom_bar(stat = "count") +  
  labs(title = "TITLE FOR GRAPH",  
    x = "TITLE FOR THE X-AXIS",  
    y = "TITLE FOR THE Y-AXIS")
```

**Note:** This bar plot has the variable names on the x-axis. If the names are squished, then you should use **y = NAME OF VARIABLE** instead of **x = NAME OF VARIABLE**.

### Plotting a One Categorical Variable Bar Plot with Proportions

```
ggplot(data = NAME OF DATASET,  
  mapping = aes(x = NAME OF VARIABLE)) +  
  geom_bar(stat = "count", aes(y = ..prop.., group = 1)) +  
  labs(title = "TITLE FOR GRAPH",  
    x = "TITLE FOR THE X-AXIS",  
    y = "TITLE FOR THE Y-AXIS")
```

**Note:** This bar plot has the variable names on the x-axis. If the names are squished, then you should use **y = NAME OF VARIABLE** instead of **x = NAME OF VARIABLE**.

## Creating a Summary Table of Observations of One Categorical Variable

```
NAME OF DATASET |>  
count(NAME OF VARIABLE)
```

## Conducting an Exact Binomial Hypothesis Test for One Proportion

```
binom.test(x = NUMBER OF SUCCESSES, n = SAMPLE SIZE, p = NULL VALUE, alternative = "DIRECTION")
```

**Note:** The alternative direction can be "greater", "less", or "two.sided"

## Performing a Chi-Squared Goodness-of-Fit Test (One Categorical Variable)

```
chisq_test(x = NAME OF DATASET,  
           response = NAME OF VARIABLE,  
           p = c("CATEGORY 1" = EXPECTED PROP 1,  
                 "CATEGORY 2" = EXPECTED PROP 2,  
                 "CATEGORY LAST" = EXPECTED PROP LAST  
                 )  
           )
```

\*Make sure to check conditions first!