```r
library(tidyverse)
```

```
## -- Attaching packages --------------------------------------- tidyverse 1.3.1 --

## v ggplot2 3.3.5     v purrr   0.3.4
## v tibble  3.1.4     v dplyr   1.0.7
## v tidyr   1.1.3     v stringr 1.4.0
## v readr   2.0.1     v forcats 0.5.1

## -- Conflicts ------------------------------------------ tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
```

```r
library(readr)
data <- read_csv("~/Desktop/204 R/BBALL.csv")
```

```
## Rows: 24 Columns: 2

## -- Column specification --------------------------------------------------------
## Delimiter: ","
## dbl (2): Resonance, Frequency

##
## i Use `spec()` to retrieve the full column specification for this data.
## i Specify the column types or set `show_col_types = FALSE` to quiet this message.
```

```r
data.model=lm(data$Frequency~data$Resonance)

summary(data.model)
```

```
##
## Call:
## lm(formula = data$Frequency ~ data$Resonance)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -701.12 -134.49   69.35  164.67  275.53
##
## Coefficients:
##                Estimate Std. Error t value Pr(>|t|)
## (Intercept)    1469.351    101.216   14.52 9.47e-13 ***
## data$Resonance  210.765      7.084   29.75  < 2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 240.2 on 22 degrees of freedom
## Multiple R-squared:  0.9758, Adjusted R-squared:  0.9746
## F-statistic: 885.3 on 1 and 22 DF,  p-value: < 2.2e-16
```

```
confint(data.model)
```

```
##                     2.5 %    97.5 %
## (Intercept)    1259.4419 1679.2610
## data$Resonance  196.0746  225.4558
```

```
anova(data.model)
```

```
## Analysis of Variance Table
##
## Response: data$Frequency
##                 Df   Sum Sq  Mean Sq F value    Pr(>F)
## data$Resonance   1 51085273 51085273  885.28 < 2.2e-16 ***
## Residuals       22  1269508    57705
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
plot(data$Resonance,data$Frequency)
abline(data.model,xlab="resonance",ylab="frequency")
```