Stats. Inference Assignment 3

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##1. Setup ### options Set up global options

libraries

Load in needed libraries

```
library(tidyverse)
```

```
## -- Attaching packages ------------ tidyverse 1.3.0 --
```

```
## v ggplot2 3.2.1      v purrr   0.3.3
## v tibble  2.1.3      v dplyr   0.8.3
## v tidyr   1.0.2      v stringr 1.4.0
## v readr   1.3.1      v forcats 0.4.0
```

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

```
library(RColorBrewer)
```

2. File management

Create variables for directories

```
project.dir <- getwd() #naeem
output.dir <- "/Output"
data.dir <- "C:/Users/Naeem Cho/Desktop/School Work/Statistical Inference/Datasets"
setwd(project.dir)
getwd()
```

```
## [1] "C:/Users/Naeem Cho/Desktop/School Work/Statistical Inference/Statistical_Inference/2020-05-19_HW
```

Problem #1

1. Code up your own *my.chisq.test()* function that will perform a χ^2 test. As a single argument, it should just take a contingency table of arbitrary size. As output, it should provide:

- Calculated χ^2 statistic
- *p*-value

Caclulating the expected cell counts under H_0 hypothesis should constitute a critical part of your function definition. Don't use neither *chisq.test()* nor *prop.test()*, nor any other "fancy cheat" built-in functions inside your function's definition.