Homework 1

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2023-06-10

## R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see <http://rmarkdown.rstudio.com>.

When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

summary(cars)

## speed dist   
## Min. : 4.0 Min. : 2.00   
## 1st Qu.:12.0 1st Qu.: 26.00   
## Median :15.0 Median : 36.00   
## Mean :15.4 Mean : 42.98   
## 3rd Qu.:19.0 3rd Qu.: 56.00   
## Max. :25.0 Max. :120.00

## Including Plots

You can also embed plots, for example:



Note that the echo = FALSE parameter was added to the code chunk to prevent printing of the R code that generated the plot.

## Problem 1

### A

#### Mean, Median, Variance, and Standard Deviation

100 Yards

mean(trackm100) var(trackm100)

200 Yards

mean(trackm200) var(trackm200)

#### B

Due to the nature of the data, I feel that the mode is not useful. Mode is used to identify the most common time. Since this data consists of the times for the 100 and 200 meter yard dashes, it is unlikely that any value will appear more than once.

#### C