## HW10

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## 3/2/2019

# Exercise 1

day <- c("1903/1/13","2019/2/27")

as.Date(day)

difftime(day[2],day[1])

seq(as.Date("2019/1/1"), as.Date("2019/2/27"), by = "month")

> as.Date(day)

[1] "1903-01-13" "2019-02-27"

> difftime(day[2],day[1])

Time difference of 42414 days

> seq(as.Date("2019/1/1"), as.Date("2019/2/27"), by = "month")

[1] "2019-01-01" "2019-02-01"

# Exercise 2

sc.game <- read.csv(file.choose(),stringsAsFactors = FALSE)

sc.game$score <- sc.game$home\_score + sc.game$away\_score

ave.score.1 <- colMeans(sc.game[sc.game$date >="1930" & sc.game$date <="1939",c("home\_score","away\_score","score")])

ave.score.2 <- colMeans(sc.game[sc.game$date >="2005" & sc.game$date <="2014",c("home\_score","away\_score","score")])

ave.score.1

ave.score.2

> ave.score.1

home\_score away\_score score

2.429204 1.809735 4.238938

> ave.score.2

home\_score away\_score score

1.570946 1.095238 2.666184

game.1950s <- sc.game[sc.game$date >="1950-01-01" & sc.game$date <= "1959-12-31",]

home\_win <- game.1950s$home\_score > game.1950s$away\_score

sum(home\_win) / nrow(game.1950s)

> sum(home\_win) / nrow(game.1950s)

[1] 0.4847328

sc.game$date <- as.Date(sc.game$date)

sc.game$year <- format(sc.game$date,format = "%Y")

games<-summary(factor(sc.game$year[sc.game$year>"1900"& sc.game$year<"1960"]))

plot(games, type="s")

