Homework 6

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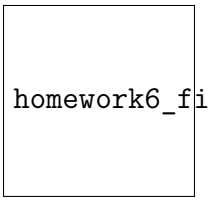
Problem 1

a

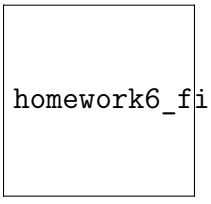
```
fData<-read.delim("nym2021.txt")
ageGroups<-table(fData$DivAge)
print(barplot(ageGroups,border = "grey",col="white"))
```




```
##       [,1]
##  [1,]  0.7
##  [2,]  1.9
##  [3,]  3.1
##  [4,]  4.3
##  [5,]  5.5
##  [6,]  6.7
##  [7,]  7.9
##  [8,]  9.1
##  [9,] 10.3
```

b

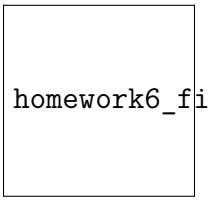
```
fData<-read.delim("nym2021.txt")
ageNsex<-table(fData$Sex)
print(barplot(ageNsex,col=c('red','blue'),beside=T,legend=c('F','M')))
```



```
##      [,1]
## [1,]  0.7
## [2,]  1.9
```

c

```
fData<-read.delim("nym2021.txt")
ageNsex<-table(fData$Sex,fData$DivAge)
print(barplot(ageNsex,col=rep(rainbow(9),each =2),beside=T))
```




```
##      [,1] [,2] [,3] [,4] [,5] [,6] [,7] [,8] [,9]
## [1,]  1.5  4.5  7.5 10.5 13.5 16.5 19.5 22.5 25.5
## [2,]  2.5  5.5  8.5 11.5 14.5 17.5 20.5 23.5 26.5
```

d

Plot b shows us that there were more male finishers in the race than female. And a larger proportion of the fishers in th race were male. Aswell as for each age group.

e

From the plot given in the question we can see that relative to their population sizes more females were able to finish the race which does not necessarily contradict my answer in part d as there were overall more male finishers but only because there were a lot more males in the race, so it is important to tsee all the data before making any assumptions. ### f

```
fData<-read.delim("nym2021.txt")
medAge<-aggregate(fData$DivAge,list(fData$DivAge),median)
```

```
## Warning in mean.default(sort(x, partial = half + 0L:1L)[half + 0L:1L]): argument
## is not numeric or logical: returning NA

## Warning in mean.default(sort(x, partial = half + 0L:1L)[half + 0L:1L]): argument
## is not numeric or logical: returning NA

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## is not numeric or logical: returning NA
```
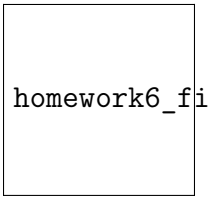

```
## Warning in mean.default(sort(x, partial = half + 0L:1L)[half + 0L:1L]): argument
## is not numeric or logical: returning NA

## Warning in mean.default(sort(x, partial = half + 0L:1L)[half + 0L:1L]): argument
## is not numeric or logical: returning NA
```

```
med<-table(medAge)
print(barplot(med,col=rep(rainbow(9),each =2)))
```



homework6_files/figure-latex/unnamed-chunk-4-1.pdf

```
## [1] 0.7 1.9 3.1
```

g

median from all age groups is roughly the same.

Problem 2

a