

# Acosta-Worksheet4

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```
#1a
Shoesize <- c(6.5,9.0,8.5,8.5,10.5,7.0,9.5,9.0,13.0,
             7.5,10.5,8.5,12.0,10.5,
             13.0,11.5,8.5,5.0,10.0,
             6.5,7.5,8.5,10.5,8.5,10.5,11.0,9.0,13.0)

Height <- c(66.0,68.0,64.5,65.0,70.0,
            64.0,70.0,71.0,72.0,64.0,
            74.5,67.0,71.0,71.0,77.0,72.0,
            59.0,62.0,72.0,66.0,64.0,67.0,73.0,
            69.0,72.0,70.0,69.0,70)

Gender <- c("F","F","F","F","M","F","M","F","M",
            "M","M","F","M","M","M","M","F","F",
            "M","F","M","M","M","F","M","M","M","M")

df <- data.frame(Shoesize,Height,Gender)
df
```

##	Shoesize	Height	Gender
## 1	6.5	66.0	F
## 2	9.0	68.0	F
## 3	8.5	64.5	F
## 4	8.5	65.0	F
## 5	10.5	70.0	M
## 6	7.0	64.0	F
## 7	9.5	70.0	M
## 8	9.0	71.0	F
## 9	13.0	72.0	M
## 10	7.5	64.0	M
## 11	10.5	74.5	M
## 12	8.5	67.0	F
## 13	12.0	71.0	M
## 14	10.5	71.0	M
## 15	13.0	77.0	M
## 16	11.5	72.0	M
## 17	8.5	59.0	F
## 18	5.0	62.0	F
## 19	10.0	72.0	M
## 20	6.5	66.0	F
## 21	7.5	64.0	M
## 22	8.5	67.0	M

```
## 23      10.5    73.0      M
## 24       8.5    69.0      F
## 25      10.5    72.0      M
## 26      11.0    70.0      M
## 27       9.0    69.0      M
## 28      13.0    70.0      M
```

```
#b
summary(df)
```

```
##      Shoesize      Height      Gender
## Min.   : 5.000   Min.   :59.00   Length:28
## 1st Qu.: 8.500   1st Qu.:65.75   Class :character
## Median : 9.000   Median :69.50   Mode  :character
## Mean   : 9.411   Mean    :68.57
## 3rd Qu.:10.500   3rd Qu.:71.25
## Max.   :13.000   Max.    :77.00
```

```
# SHOESIZE: Mean    : 9.411
# HEIGHT:   Mean    :68.57
```

```
#c
#Yes, The Higher the height, the greater the shoesize.
```

```
#the factor levels below the actual values.
```

```
Months <- c("March","April","January","November","January",
            "September","October","September","November","August",
            "January","November","November","February","May","August",
            "July","December","August","August","September","November","February","April")
```

```
factor_Months <- factor(Months)
factor_Months
```

```
## [1] March      April      January    November   January    September  October
## [8] September  November   August     January    November   November   February
## [15] May        August     July       December   August     August     September
## [22] November   February   April
## 11 Levels: April August December February January July March May ... September
```

```
#3. Then check the summary() of the months_vector and factor_months_vector. /
#Interpret the results of both vectors. Are they both equally useful in this case?
summary(Months)
```

```
##      Length      Class      Mode
##         24 character character
```

```
summary(factor_Months)
```

```
##      April      August  December  February  January      July      March      May
##         2         4         1         2         3         1         1         1
## November   October  September
##         5         1         3
```

```
#4.  
factor_data <- c(1,4,3)  
  
new_order_data <- factor(factor_data,levels = c("East","West","North"))  
print(new_order_data)  
  
## [1] <NA> <NA> <NA>  
## Levels: East West North
```