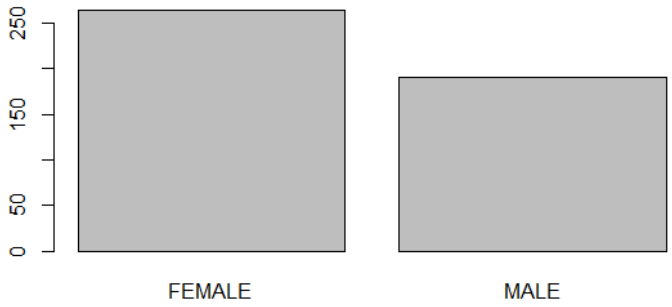
```
> attach(student)
```

1. Pie Charts and **Bar Plots** Using One Categorical Variable

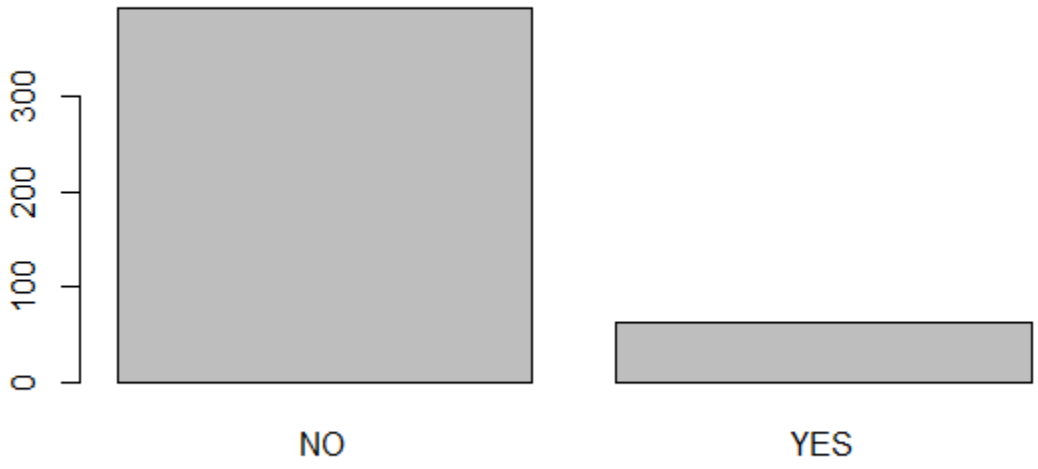
(a) Draw a **bar plot** for the variable GENDER

```
> barplot(table(GENDER))
```



(b) Draw a **bar plot** for the variable MARRIED

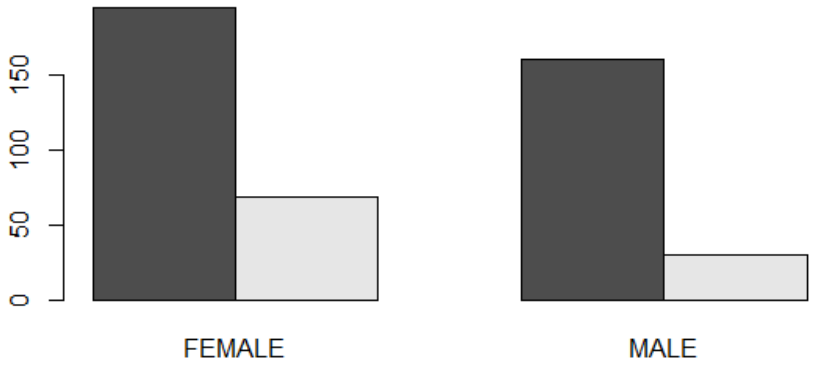
```
> barplot(table(MARRIED))
```



2. Side-by-Side Bar Plots Using Two Categorical Variables

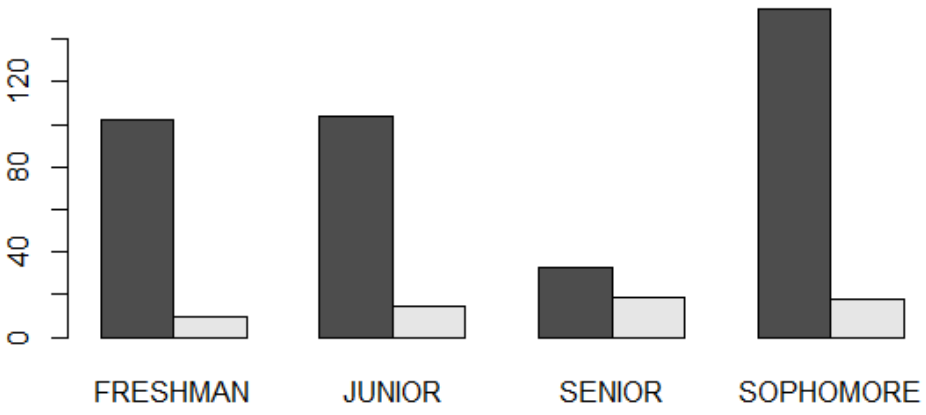
(a) Draw a **side-by-side bar plot** for two variables TATTOO and GENDER

```
> barplot(table(TATTOO, GENDER), beside=TRUE)
```



(b) Draw a **side-by-side bar plot** for two variables MARRIED and CLASS

```
> barplot(table(MARRIED, CLASS), beside=TRUE)
```



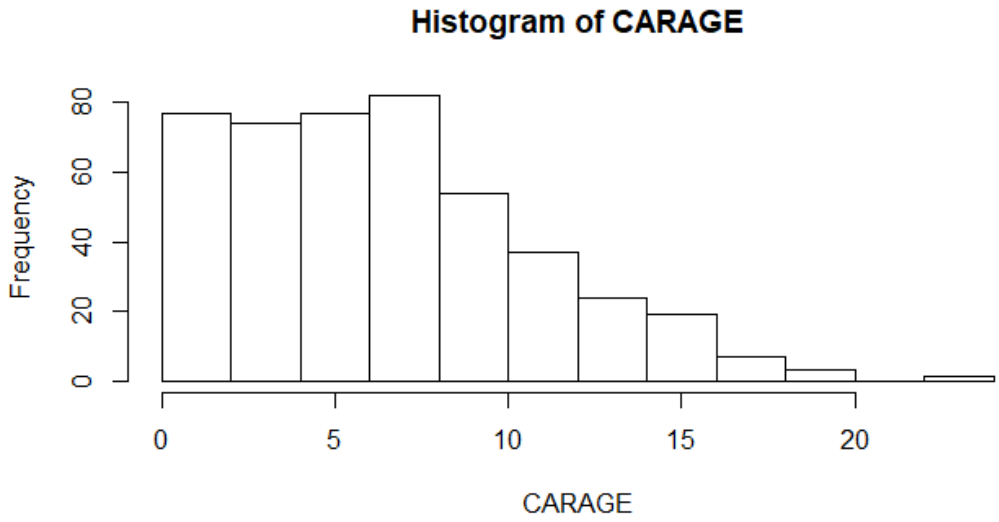
3. Histograms Using One Quantitative Variable

(a) Draw a **histogram** for the variable SHOES by typing hist(SHOES)

```
> hist(SHOES)
```

(b) Draw a **histogram** for the variable CARAGE

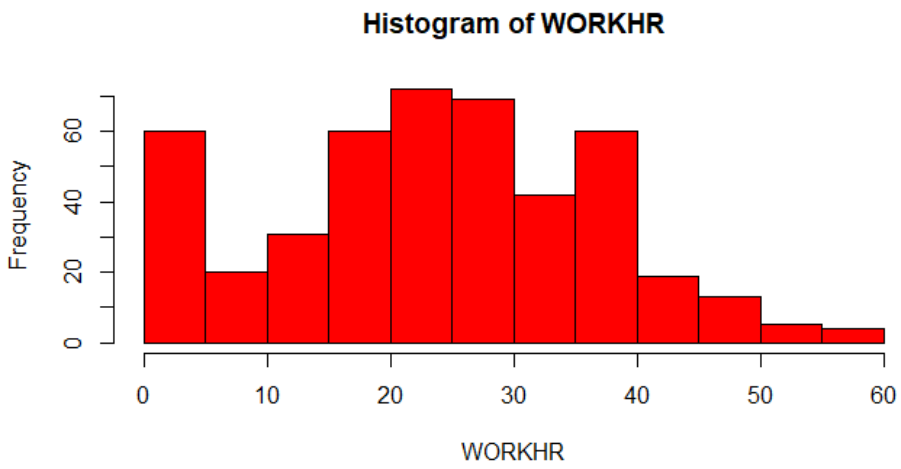
```
> hist(CARAGE)
```



4. Histograms with Some Options Added

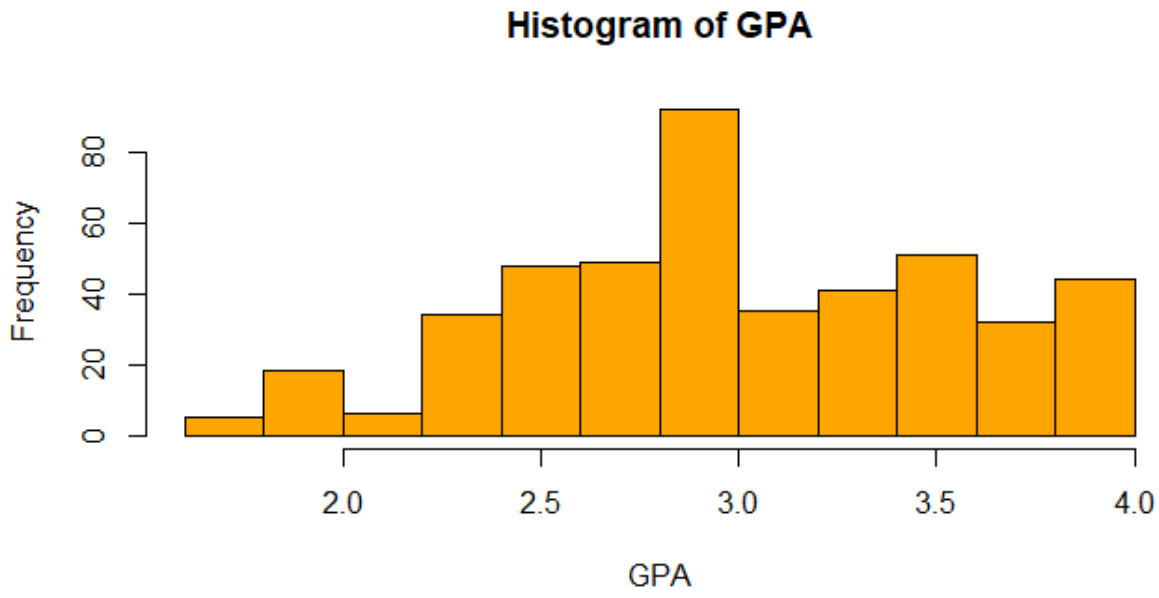
(a) Draw a **histogram** for the variable WORKHR and **color the bars** in red

```
> hist(WORKHR, col="red")
```



(b) Draw a **histogram** for GPA and color the bars (use a color other than red)

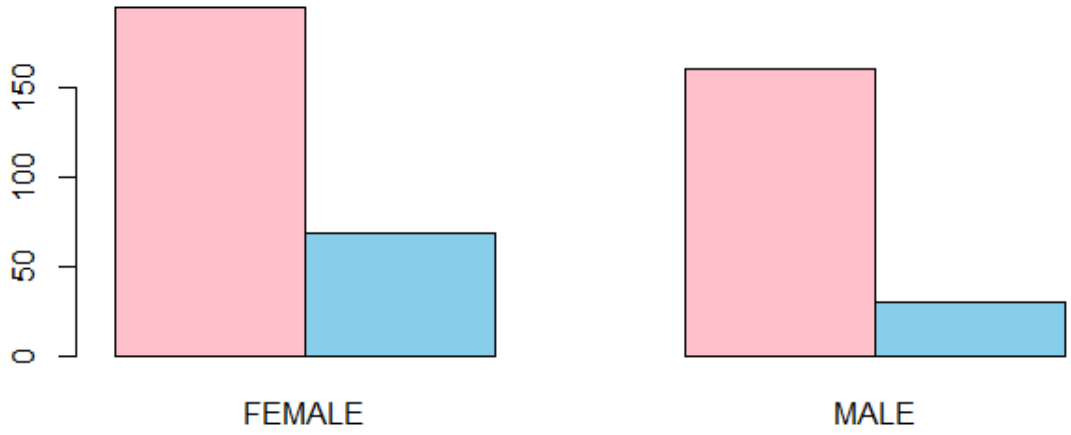
```
> hist(GPA, col="orange")
```



5. Side-by-Side Bar Plots with Some Options and a Legend Added

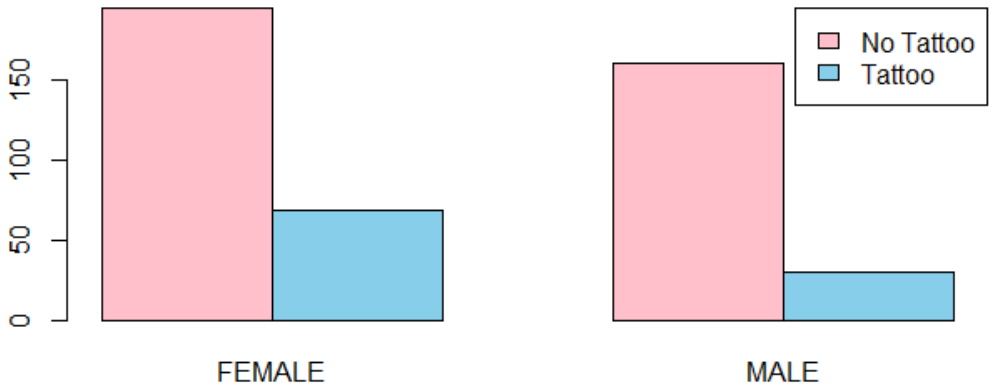
(a) Draw a **side-by-side bar plot** for two variables TATTOO and GENDER and **color the bars** (we need two colors: e.g. pink and sky blue) by typing the command as shown below.

```
> barplot(table(TATTOO, GENDER), beside=TRUE, col=c("pink", "skyblue"))
```



(b) **Add a legend** ("No Tattoo" or "Tattoo") to the plot in (a) and place the legend in the top and right-hand side by typing the command shown below.

```
> legend("topright", legend=c("No Tattoo", "Tattoo"), fill=c("pink", "skyblue"))
```



Note: We need two colors (one color for "No Tattoo" and one for "Tattoo")
 The first bar for each category in the default graph represents "No Tattoo"
 The second bar in the default graph represents "Tattoo"

(c) Draw a **side-by-side bar plot** for two variables MARRIED and CLASS and **color the bars**, and also add a legend.

```
> barplot(table(MARRIED, CLASS), beside=TRUE, col=c("skyblue", "yellow"))
> legend("topleft", legend=c("No Married", "Married"), fill=c("skyblue", "yellow"))
```