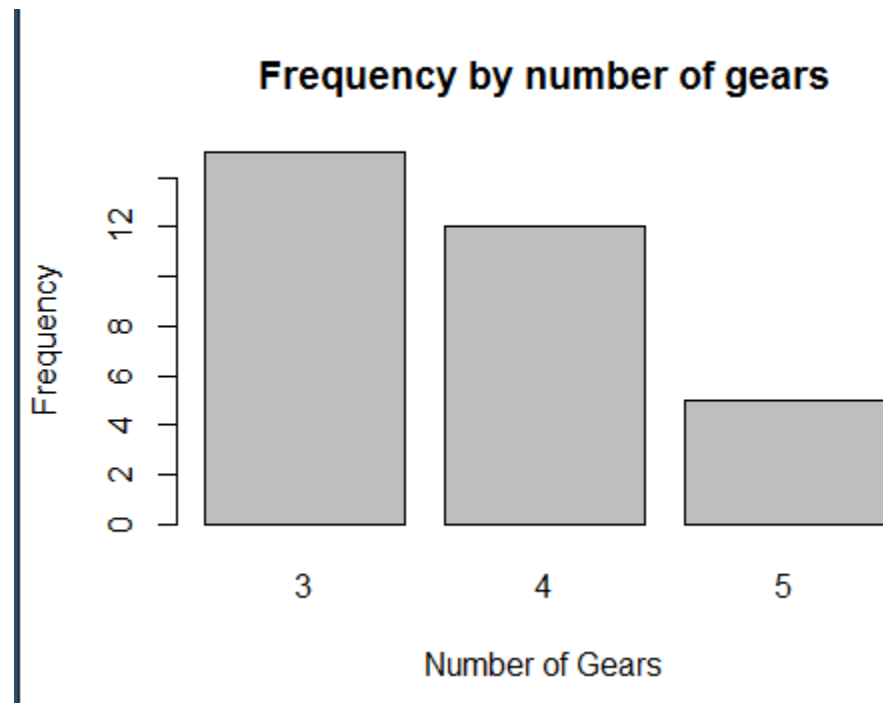


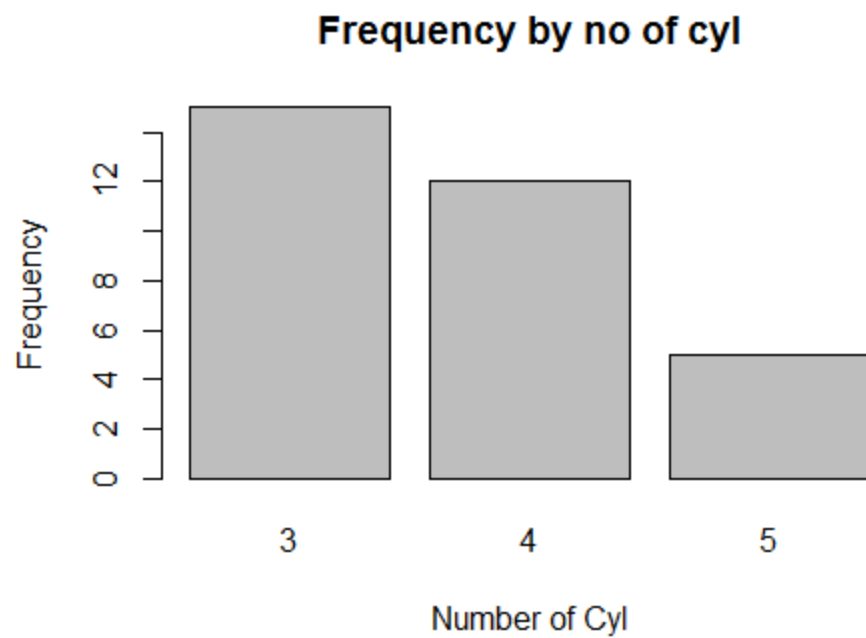
1. Write a program to create barplots for all the categorical columns in mtcars.

```
freq = table(mtcars$gear)
```

```
barplot(freq, main = "Frequency by number of gears", xlab = "Number of Gears", ylab="Frequency")
```

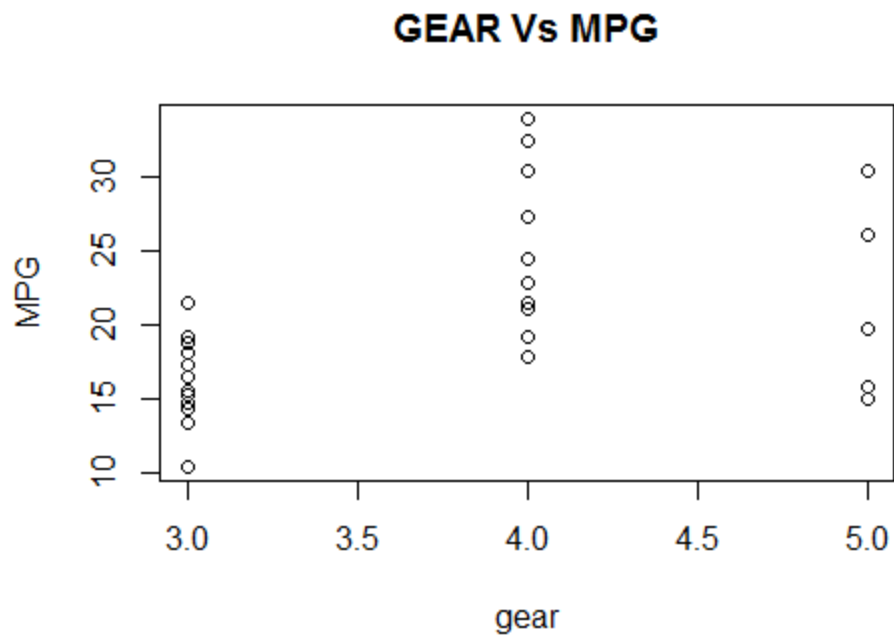
```
barplot(freq, main = "Frequency by no of cyl", xlab = "Number of Cyl", ylab="Frequency")
```





2. Create a scatterplot matrix by gear types in mtcars dataset.

```
plot(mtcars$gear , mtcars$mpg, xlab = 'gear',  
     ylab = 'MPG',  
     main = 'GEAR Vs MPG')
```



3. Write a program to create a plot density by class variable.

```
mtcars
```

```
d=density(mtcars$mpg)
```

```
plot(d)
```

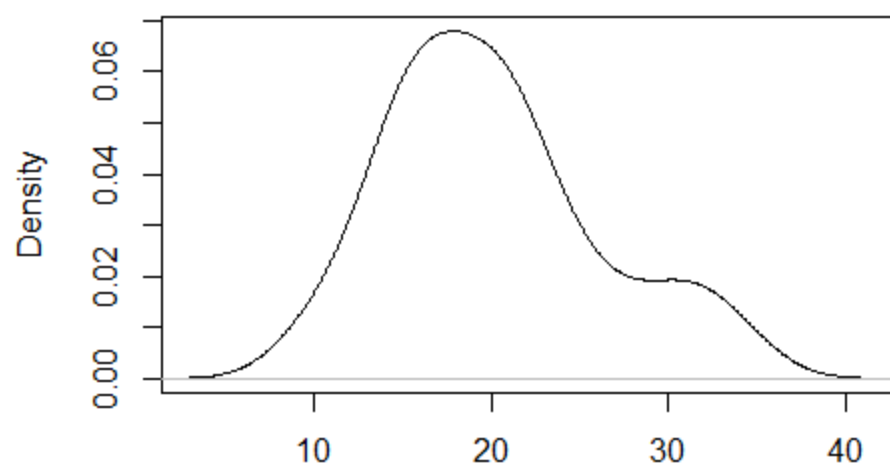
```
f=density(mtcars$cyl)
```

```
plot(f)
```

```
e=density(mtcars$disp)
```

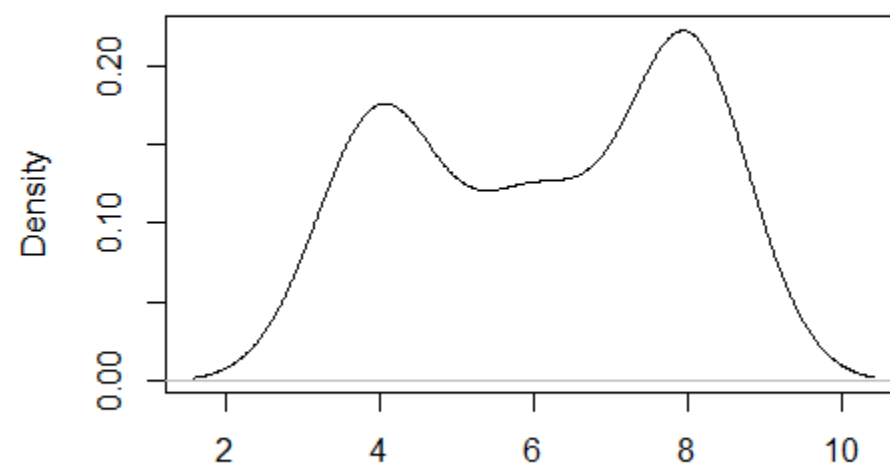
```
plot(e)
```

density.default(x = mtcars\$mpg)



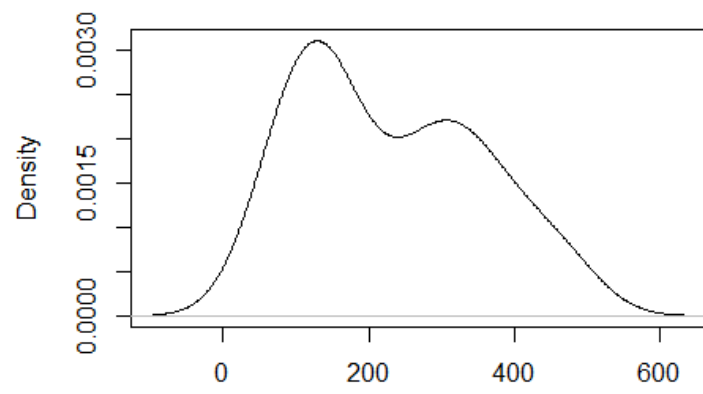
N = 32 Bandwidth = 2.477

density.default(x = mtcars\$cyl)



N = 32 Bandwidth = 0.8037

density.default(x = mtcars\$disp)



N = 32 Bandwidth = 55.77