Stat_HW_01

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Problem 6.

a.

```
head(mtcars, 3)
```

```
##                mpg cyl disp  hp drat    wt  qsec vs am gear carb
## Mazda RX4     21.0   6  160 110 3.90 2.620 16.46  0  1    4    4
## Mazda RX4 Wag 21.0   6  160 110 3.90 2.875 17.02  0  1    4    4
## Datsun 710    22.8   4  108  93 3.85 2.320 18.61  1  1    4    1
```

```
tail(mtcars, 3)
```

```
##                mpg cyl disp  hp drat   wt qsec vs am gear carb
## Ferrari Dino  19.7   6  145 175 3.62 2.77 15.5  0  1    5    6
## Maserati Bora 15.0   8  301 335 3.54 3.57 14.6  0  1    5    8
## Volvo 142E    21.4   4  121 109 4.11 2.78 18.6  1  1    4    2
```

b.

```
mtcars[which(mtcars$hp == max(mtcars$hp)), ]
```

```
##               mpg cyl disp  hp drat   wt qsec vs am gear carb
## Maserati Bora  15   8  301 335 3.54 3.57 14.6  0  1    5    8
```

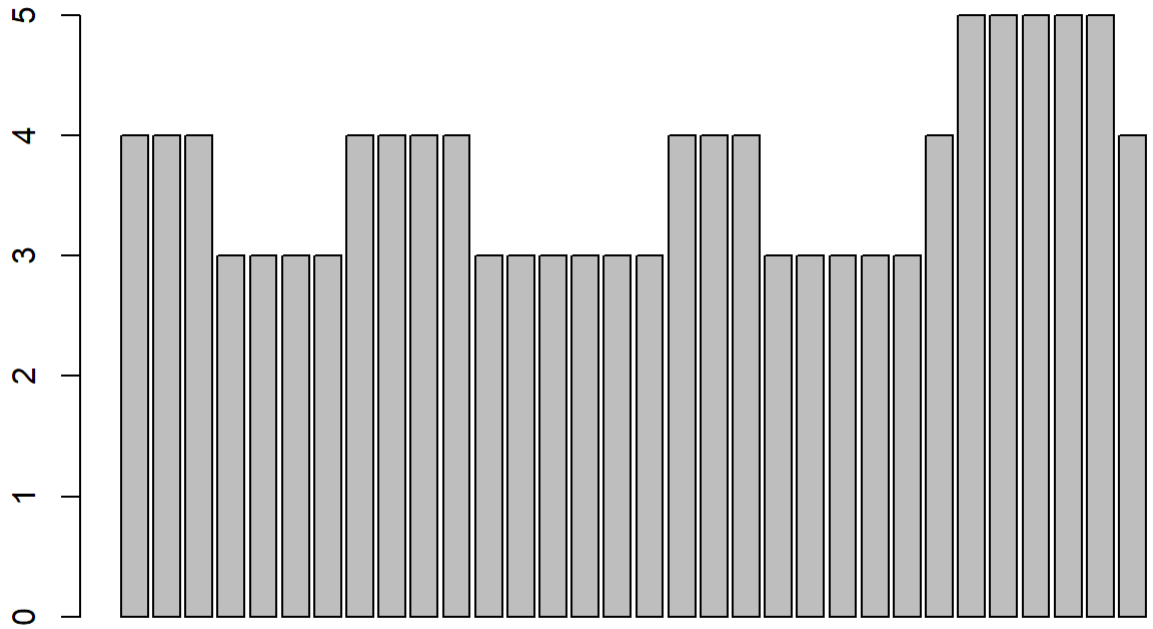
c.

```
table(mtcars$gear)
```

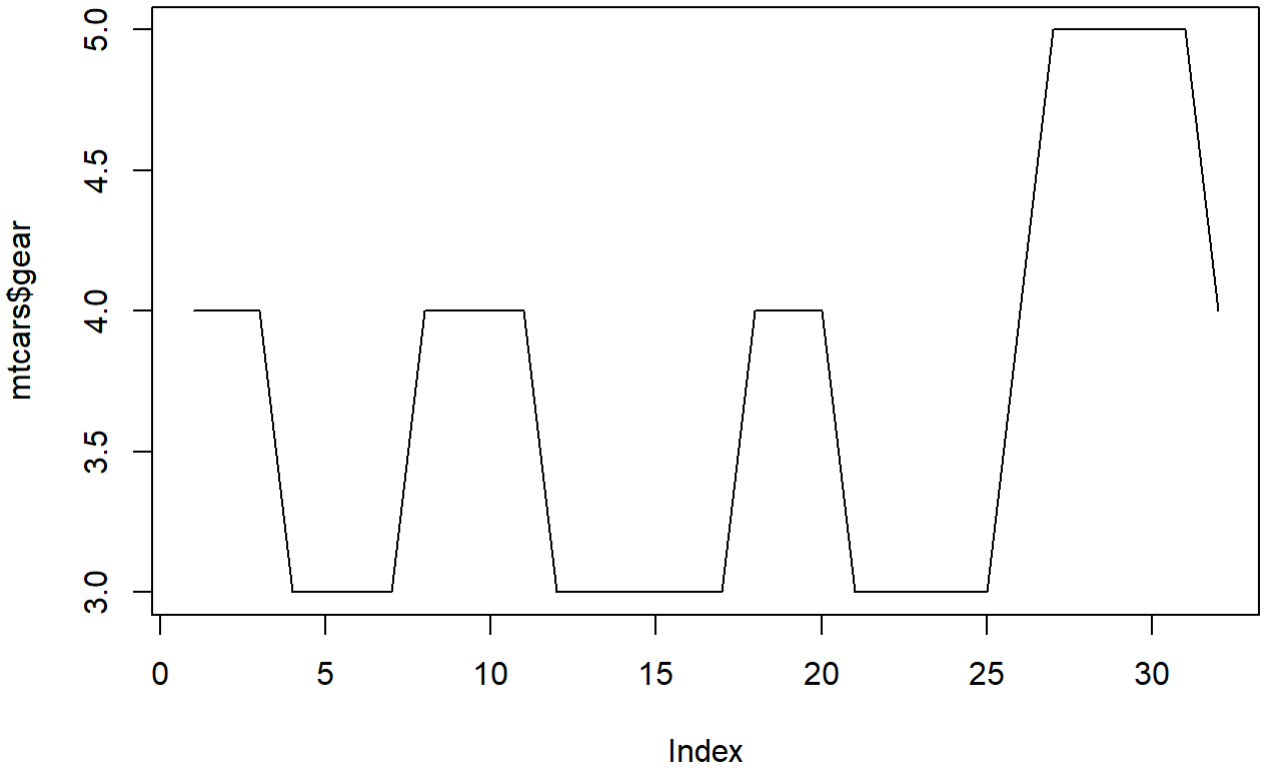
```
##
##  3  4  5
## 15 12  5
```

d.

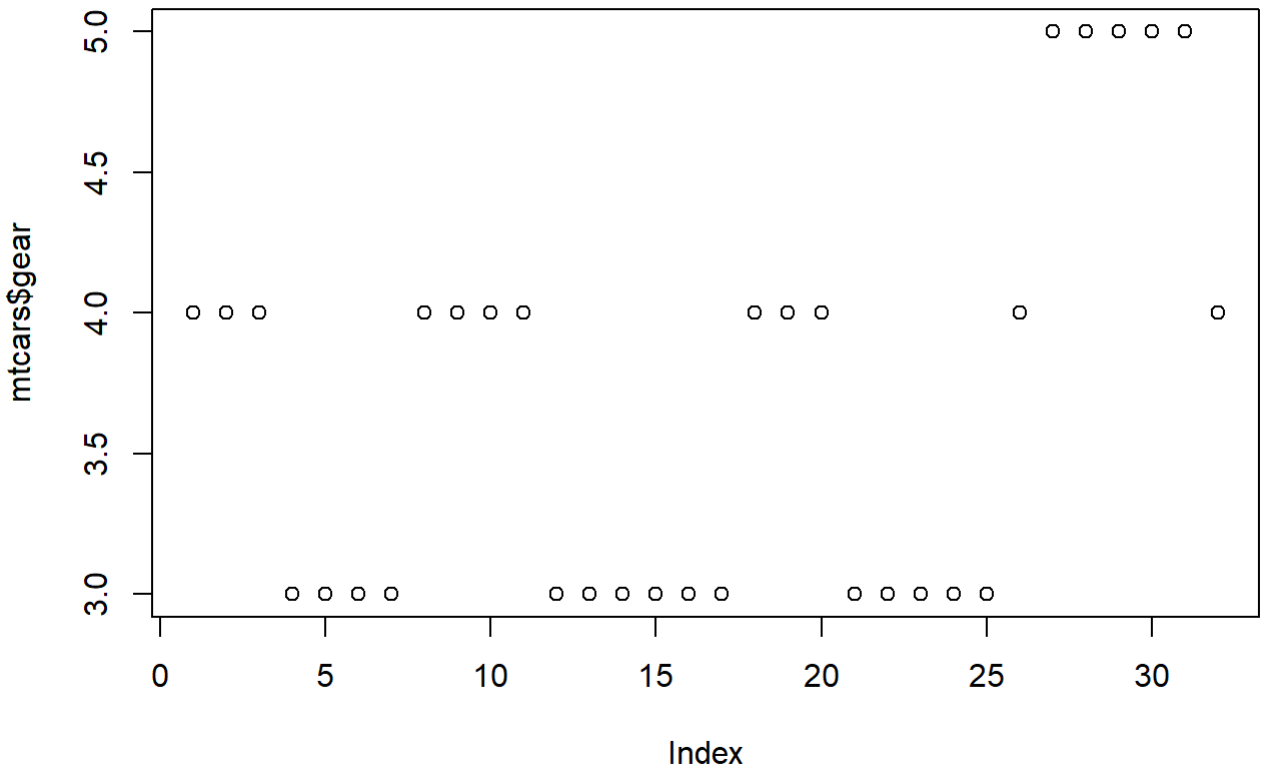
```
barplot(mtcars$gear)
```



```
plot(mtcars$gear, type = "l")
```




```
plot(mtcars$gear)
```



Problem 9

```
x=c(1,2,3,5,6,1,1,1,2,3,7,8,6,6,6,6,2,2,2,3,4,5,4)
frequency=table(x)
Relative_fr=frequency/sum(x)
print(Relative_fr)
```

```
## x
##          1          2          3          4          5          6
## 0.04651163 0.05813953 0.03488372 0.02325581 0.02325581 0.05813953
##          7          8
## 0.01162791 0.01162791
```