```
data_cars=cars
```

```
data_cars                50 obs. of 2 variables
    $ speed: num  4 4 7 7 8 9 10 10 10 11 ...
    $ dist : num  2 10 4 22 16 10 18 26 34 17 ...
```

View(data_cars)

	speed	dist
1	4	2
2	4	10
3	7	4
4	7	22
5	8	16
6	9	10
7	10	18
8	10	26
9	10	34
10	11	17
11	11	28
12	12	14
13	12	20
14	12	24
15	12	28
16	13	26
17	13	34
18	13	34
19	13	46
20	14	26
21	14	36
22	14	60
23	14	80
24	15	20
25	15	26
26	15	54

Showing 1 to 27 of 50 entries, 2 total columns

table(data_cars$speed)

```
 4  7  8  9 10 11 12 13 14 15 16 17 18 19 20 22 23 24 25
 2  2  1  1  3  2  4  4  4  3  2  3  4  3  5  1  1  4  1
```

summary(data_cars$speed)

```
Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
 4.0    12.0    15.0    15.4    19.0    25.0
```

sum_speed=sum(cars$speed)

sum_speed

```
> sum_speed
[1] 770
```

mean(c(1:100))

```
> mean(c(1:100))
[1] 50.5
```

mean(data_cars$speed)

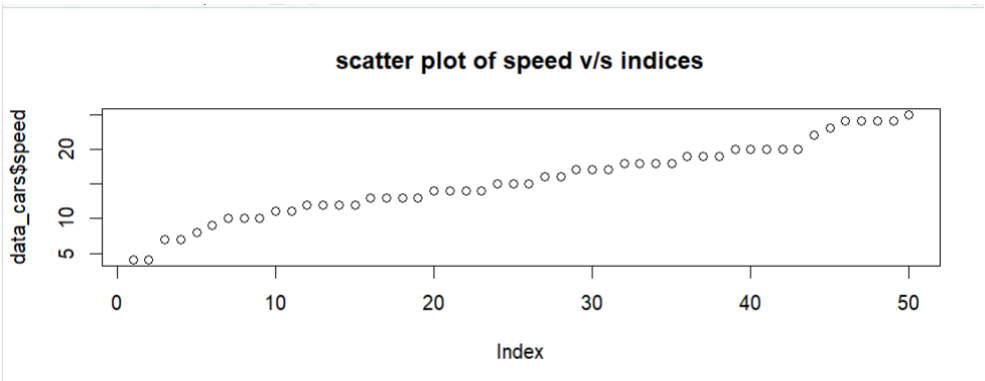
sd(data_cars$speed)

var(data_cars$dist)

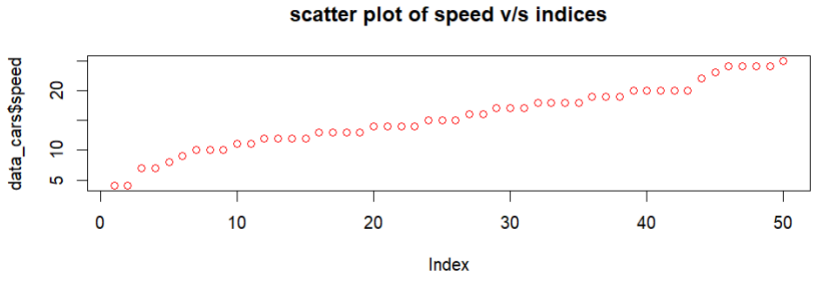
var(data_cars$speed)

```
> mean(data_cars$speed)
[1] 15.4
> sd(data_cars$speed)
[1] 5.287644
> var(data_cars$dist)
[1] 664.0608
> var(data_cars$speed)
[1] 27.95918
```

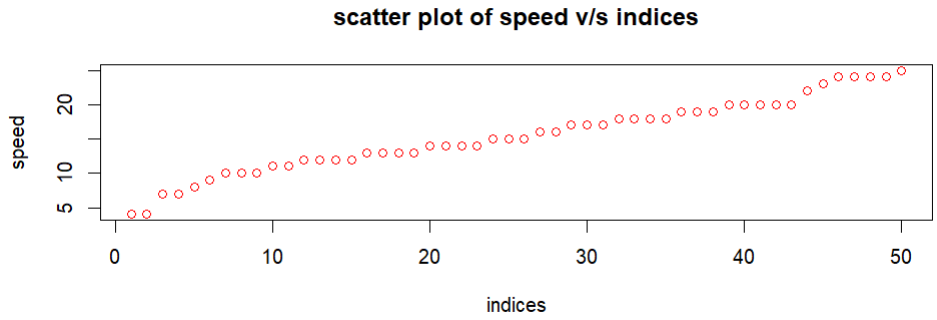
plot(data_cars$speed,main="scatter plot of speed v/s indices")



plot(data_cars$speed,col="red",main="scatter plot of speed v/s indices")



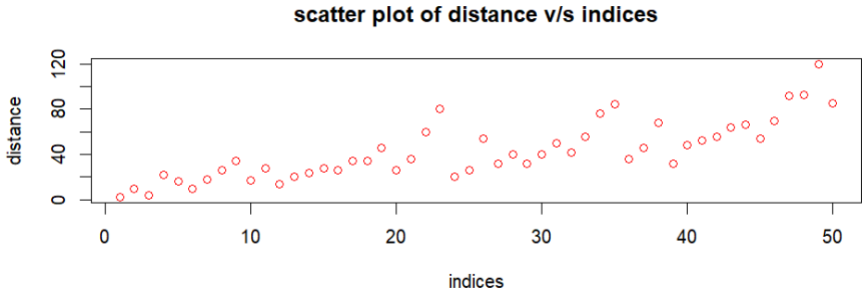
plot(data_cars$speed,col="red",main="scatter plot of speed v/s indices",xlab="indices",ylab="speed")



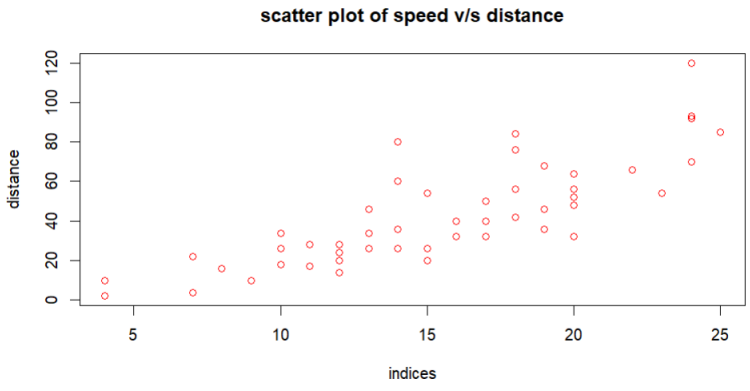
plot(data_cars$dist,main="scatter plot of distance v/s indices")

plot(data_cars$dist,col="red",main="scatter plot of distance v/s indices")

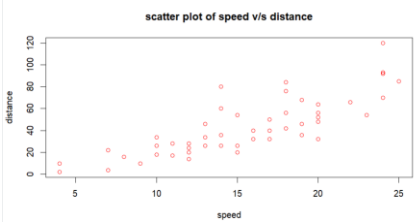
plot(data_cars$dist,col="red",main="scatter plot of distance v/s indices",xlab="indices",ylab="distance")



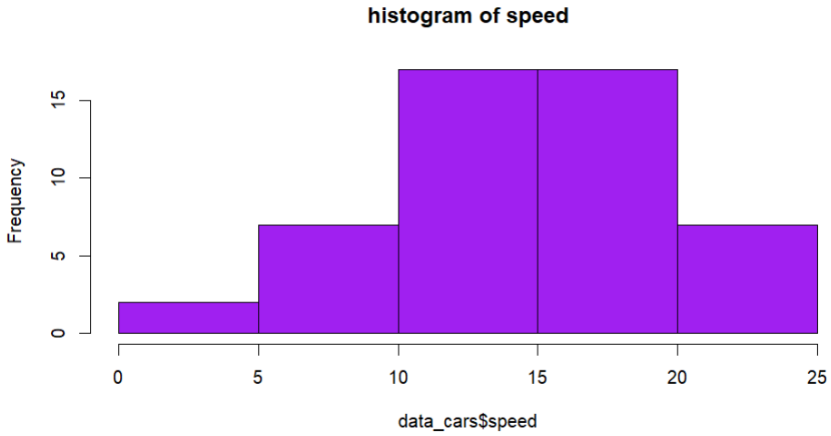
plot(data_cars$speed,data_cars$dist,col="red",main="scatter plot of speed v/s distance",xlab="indices",ylab="distance")



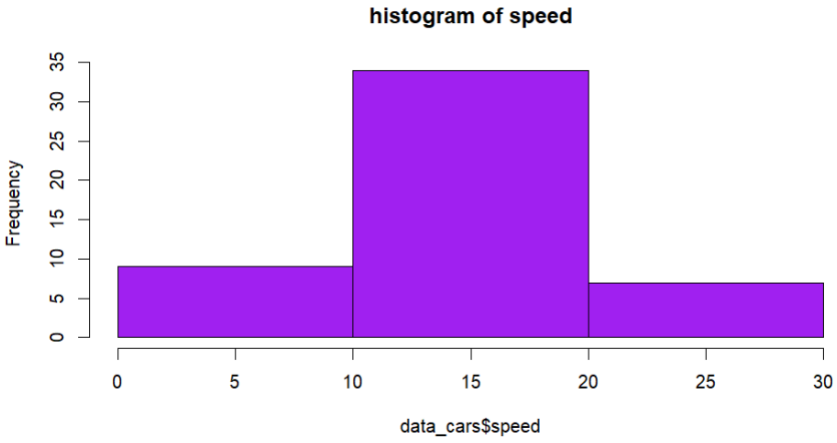
plot(data_cars$speed,data_cars$dist,col="red",main="scatter plot of speed v/s distance",xlab="speed",ylab="distance")



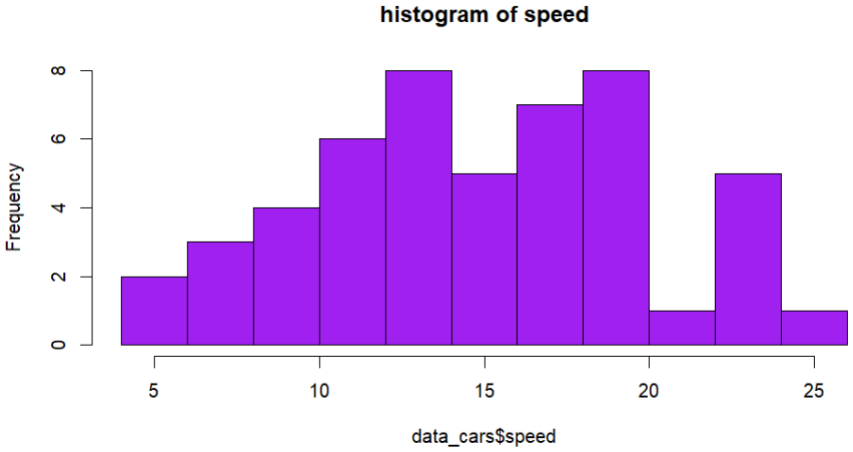
hist(data_cars$speed,col="purple",main="histogram of speed")



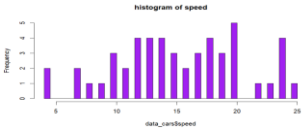
hist(data_cars$speed,col="purple",main="histogram of speed",breaks=2)



hist(data_cars$speed,col="purple",main="histogram of speed",breaks=10)



hist(data_cars$speed,col="purple",main="histogram of speed",breaks=49)



```
a=5
if(a==5)
{
 print("a=5")
}else if(a<6)
{
 print("value is less than 6")
}else
{
 print("a>=6")
}
```

```
[1] "a=5"
```

data	150 obs. of 5 variables
data_cars	50 obs. of 2 variables
$ speed: num 4 4 7 7 8 9 10 10 10 11 ...	
$ dist : num 2 10 4 22 16 10 18 26 34 17 ...	
Values	
a	5
sum_speed	770

```
a=5
if(a<6)
{
print("value is less than 6")
}
```

```
[1] "value is less than 6"
>
```

```
#==,!=,<,<=,>=
#&,!,|

a=5
if(a==5|a==6)
```

```
{
  print("a=5 or 6")
}else if(a<6)
{
  print("value is less than 6")
}else
{
  print("a>=6")
}
```

```
[1] "a=5 or 6"
> 
```

```
x=1:10
for(i in x)
{
  print("hello")
}
```

```
[1] "hello"
[1] "hello"
[1] "hello"
[1] "hello"
[1] "hello"
[1] "hello"
[1] "hello"
[1] "hello"
[1] "hello"
[1] "hello"
```

Values	
a	5
i	10L
sum_speed	770
x	int [1:10] 1 2 3 4 5 6 7 8 9 10

```
#x=1:10
for(i in c(1:10))
{
  print("hello")
```

}

```
[1] "hello"
[1] "hello"
[1] "hello"
[1] "hello"
[1] "hello"
[1] "hello"
[1] "hello"
[1] "hello"
[1] "hello"
[1] "hello"
```

#x=1:10

for(i in seq(1,10,by=1))

{

print("hello")

}

```
[1] "hello"
[1] "hello"
[1] "hello"
[1] "hello"
[1] "hello"
[1] "hello"
[1] "hello"
[1] "hello"
[1] "hello"
[1] "hello"
```

#x=1:10

for(i in seq(1,10,by=2))

{

print(i)

}

```
[1] 1
[1] 3
[1] 5
[1] 7
[1] 9
```

Values	
a	5
i	9
sum_speed	770
x	int [1:10] 1 2 3 4 5 6 7 8 9 10

for(i in seq(1, 10, by = 2)) {

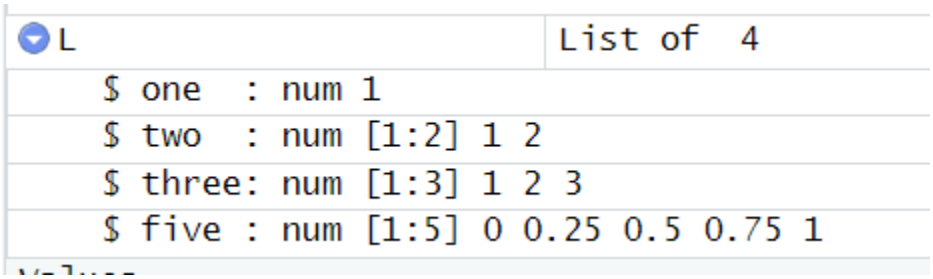
```
  print(paste0("hi", i, "hello"))
}
```

```
[1] "hi1hello"
[1] "hi3hello"
[1] "hi5hello"
[1] "hi7hello"
[1] "hi9hello"
```

```
i=0
while(i<5)
{
  print(i)
  i=i+1
}
```

```
[1] 0
[1] 1
[1] 2
[1] 3
[1] 4
```

```
L=list(one=1,two=c(1,2),three=c(1,2,3),five=seq(0,1,length=5))
```




```
L$two
```

```
[1] 1 2
```

```
L[["two"]]
```

```
[1] 1 2
```