Statistics

Median:

- Centeral values of the values when sorted in any way.

Mode:

- The number which repeate more is called mode.

Mean:

- Average of the numbers. Adding all and then dividing them on the number of element.

In [32]:
```
# import the libraries
import seaborn as sns
import numpy as np
import pandas as pd
import matplotlib.pyplot as pt
# import the data set from and then place in  the place of the folder where this py fil
phool = pd.read_csv("iris.csv")
phool.describe()
```

Out[32]:

	sepal.length	sepal.width	petal.length	petal.width
count	150.000000	150.000000	150.000000	150.000000
mean	5.843333	3.057333	3.758000	1.199333
std	0.828066	0.435866	1.765298	0.762238
min	4.300000	2.000000	1.000000	0.100000
25%	5.100000	2.800000	1.600000	0.300000
50%	5.800000	3.000000	4.350000	1.300000
75%	6.400000	3.300000	5.100000	1.800000
max	7.900000	4.400000	6.900000	2.500000

#

In [33]:
```
# find the median

phool.median()
```

```
C:\Users\Asfandyar\AppData\Local\Temp\ipykernel_12664\2925989321.py:3: FutureWarning: Dr
opping of nuisance columns in DataFrame reductions (with 'numeric_only=None') is depreca
ted; in a future version this will raise TypeError.  Select only valid columns before ca
lling the reduction.
  phool.median()
```

Out[33]:
```
sepal.length    5.80
sepal.width     3.00
petal.length    4.35
petal.width     1.30
dtype: float64
```

In [34]:
```
# find the mode
aa=phool["sepal.length"].mode()
bb=phool["sepal.width"].mode()
cc= phool["petal.length"].mode()
dd=phool["petal.width"].mode()

print("sepal.length=",aa )
print("sepal.width=", bb )
print("petal.length=",cc )
print("petal.width=", dd)
```

```
sepal.length= 0    5.0
dtype: float64
sepal.width= 0    3.0
dtype: float64
petal.length= 0    1.4
1    1.5
dtype: float64
petal.width= 0    0.2
dtype: float64
```

Titanic Data Mean,MOde Median Analysis

- find the people's age aboard the Titanic?

In [35]:
```
# import titanic data set
kashti = sns.load_dataset("titanic")
kashti.describe()
```

Out[35]:

	survived	pclass	age	sibsp	parch	fare
count	891.000000	891.000000	714.000000	891.000000	891.000000	891.000000
mean	0.383838	2.308642	29.699118	0.523008	0.381594	32.204208
std	0.486592	0.836071	14.526497	1.102743	0.806057	49.693429
min	0.000000	1.000000	0.420000	0.000000	0.000000	0.000000
25%	0.000000	2.000000	20.125000	0.000000	0.000000	7.910400
50%	0.000000	3.000000	28.000000	0.000000	0.000000	14.454200
75%	1.000000	3.000000	38.000000	1.000000	0.000000	31.000000
max	1.000000	3.000000	80.000000	8.000000	6.000000	512.329200

In [36]:
```
print ("Mean : ",kashti['age'].mean(),"\n",
"Median : ",kashti['age'].median(),"\n",
"Mode : ",kashti['age'].mode())
```

```
Mean :  29.69911764705882
 Median :  28.0
 Mode :  0    24.0
dtype: float64
```

In [37]:

```
# Noe Calculate the Mean , Median, and mode on Fares
print ("Mean : ",kashti['fare'].mean(),"\n",
"Median : ",kashti['fare'].median(),"\n",
"Mode : ",kashti['fare'].mode())
```

```
Mean :  32.204207968574636
 Median :  14.4542
 Mode :  0    8.05
dtype: float64
```