In [2]:
```
# calculate a 5-number summary
from numpy import percentile
from numpy.random import rand
# generate data sample
data = rand(1000)
# calculate quartiles
quartiles = percentile(data, [25, 50, 75])
# calculate min/max
data_min, data_max = data.min(), data.max()
# print 5-number summary
print('Min: %3f' % data_min)
print('Q1: %3f' % quartiles[0])
print('Median: %3f' % quartiles[1])
print('Q3: %3f' % quartiles[2])
print('Max: %3f' % data_max)
```

```
Min: 0.001134
Q1: 0.243092
Median: 0.504717
Q3: 0.750697
Max: 0.999820
```

In [3]:
```
#calculate 5 number summary
data=[13,43,54,34,40,56,34,61,34,23]
```

In [5]:
```
min(data)
```

Out[5]:
```
13
```

In [6]:
```
max(data)
```

Out[6]:
```
61
```

In [7]:
```
range=max(data)-min(data)
range
```

Out[7]:
```
48
```

In [12]:
```
#finding 25th percentile i.e..,Q1
data1=sorted(data)
index1=len(data1)*.25
print(index1)
```

```
2.5
```

In [11]:
```
#finding 75th percentile i.e..,Q3
data1=sorted(data)
index2=len(data1)*.75
print(index2)
```

```
7.5
```

In [14]:
```
#median
IQR=(index2-index1)
IQR
```

Out[14]: 5.0

In [ ]: