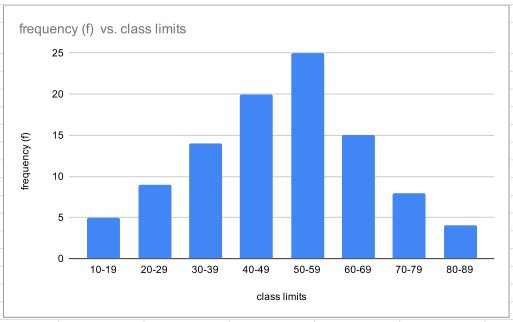
Find Mean, median and mode for the following data:-

class limits	frequency (f)	midpoint (x)	x*f	cf	
10-19	5	14.5	72.5	5	
20-29	9	24.5	220.5	14	
30-39	14	34.5	483	28	
40-49	20	44.5	890	48	
50-59	25	54.5	1362.5	73	median class
60-69	15	64.5	967.5	88	
70-79	8	74.5	596	96	
80-89	4	84.5	338	100	
total	100		4930		

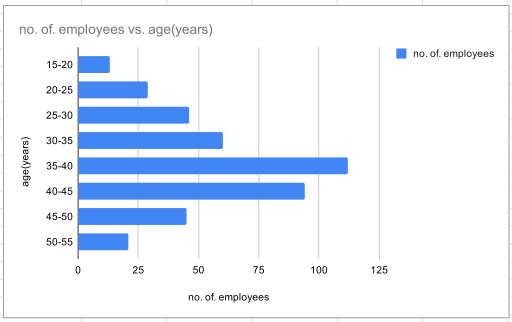


mean	49.3
N=100	
N/2=	50
median class 50-59	
L=	50
cf=	48
f=	25
w=	9
median	50.72

w=	9
L=	50
fm=	25
f1=	20
f2=	15
mode	53

Find Q1,Q2,Q3 for the following data

age(years)	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55
no. of employee	13	29	46	60	112	94	45	21



Age(years)	No. of. employee	cf	
15-20	13	13	
20-25	29	42	
25-30	46	88	
30-35	60	148	Q1 class
35-40	112	260	Q2 (median class)
40-45	94	354	Q3 class
45-50	45	399	
50-55	21	420	
total	420		

N=	420											
N/2=	210											
N/4=	105											
(3*N)/4	315											
l1=	30		l2=	35		l3=	40					
m1=	88		m2=	148		m3=	260					
c1=	5		c2=	5		c3=	5					
f1=	60		f2=	112		f3=	94					
Q1=	31.41666667											
Q2=	37.76785714											
Q3=	42.92553191											

Find median of the following set of observations

37,32,45,36,31,46,57,27,34,28,30,21

arranging in orde	21	27	28	30	31	32	34	36	37	45	46	57
N=	12		N/2=	6								
Median =	33											

Find mean , variance and standard deviation for the following data

class limits	frequency (f)	midpt(x)	x*f	x-mean=d	d^2=(x-mean)^2	((x-mean)^2)*f
10-19	5	14.5	72.5	-34.8	1211.04	6055.2
20-29	9	24.5	220.5	-24.8	615.04	5535.36
30-39	14	34.5	483	-14.8	219.04	3066.56
40-49	20	44.5	890	-4.8	23.04	460.8
50-59	25	54.5	1362.5	5.2	27.04	676
60-69	15	64.5	967.5	15.2	231.04	3465.6
70-79	8	74.5	596	25.2	635.04	5080.32
80-89	4	84.5	338	35.2	1239.04	4956.16
total=	100		4930			29296

mean=	49.3
variance =	292.96
sd=	17.11607432