

C.I	f_2	x	$f_2 x$	$ x - \bar{x}_2 $	$(x - \bar{x}_2)^2$	$f_2 (x - \bar{x}_2)^2$
1-5	2	3	6	17.14	293.78	587.56
6-10	4	8	32	12.14	147.38	589.52
11-15	7	13	91	7.14	50.98	356.86
16-20	20	18	360	2.14	4.58	91.60
21-25	16	23	368	2.86	8.18	130.88
26-30	10	28	280	7.86	61.78	617.80
31-35	4	33	132	12.86	165.38	661.52
	63		1269			3035.74

$$\text{Mean } (\bar{x}_2) = \frac{\sum f_2 x}{\sum f_2}$$

$$= \frac{1269}{63}$$

$$= 20.14$$

$$S.D_2 = \sqrt{\frac{\sum f_2 (x - \bar{x}_2)^2}{\sum f_2}}$$

$$= \sqrt{\frac{3035.74}{63}}$$

$$= \sqrt{48.19}$$

$$= 6.94$$

$$C.V_2 = \frac{S.D_2}{\bar{x}_2} \times 100$$

$$= \frac{6.94}{20.14} \times 100$$

$$= 34.46$$

Group B has less variable distribution than Group A because its coefficient of variation is smaller.

Matric No: 19/ENG07/009

Semester: STA132

Group		Assignment					
f_1	x	$f_1 x$	$x - \bar{x}$	$(x - \bar{x})^2$	$f_1(x - \bar{x})^2$		
0	3	0	14.83	219.93	0		
7	8	56	9.83	96.63	676.41		
10	13	130	4.83	23.33	233.30		
2	18	36	0.17	0.03	0.06		
1	23	23	5.17	26.73	26.73		
5	28	140	10.17	103.43	517.15		
4	33	132	15.17	230.13	920.52		
29		517			2374.17		

$$\text{Mean } (\bar{x}) = \frac{\sum f_1 x}{\sum f_1}$$

$$= \frac{517}{29}$$

$$= 17.83$$

$$S.D. = \sqrt{\frac{\sum f_1 (x - \bar{x})^2}{\sum f_1}}$$

$$= \sqrt{\frac{2374.17}{29}}$$

$$= \sqrt{81.87}$$

$$= 9.05$$

$$C.V. = \frac{S.D.}{\bar{x}} \times 100$$

$$= \frac{9.05}{17.83} \times 100$$

$$= 50.76$$