: Uddoh Imoh Victoria
: Petroleum Engineering
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Group A (F)	x	fx	$\lvert x-\bar{x}\rvert$	$\lvert x-\bar{x}\rvert^2$	$f\lvert x-\bar{x}\rvert$	$f\lvert x-\bar{x}\rvert^2$
0	3	0	14.83	219.93	0	0
7	8	56	9.83	96.63	68.81	676.41
10	13	130	4.83	23.33	48.3	233.3
2	18	36	0.17	0.03	0.34	0.06
1	23	23	5.17	26.73	5.17	26.73
5	28	140	10.17	103.43	50.85	517.15
4	33	132	15.17	230.13	60.68	920.52
29		517			234.15	2374.17

$$\frac{\Sigma fx}{\Sigma f} = \frac{517}{29} = 17.83$$

an Deviation $= \frac{\Sigma f(x-\bar{x})}{\Sigma f} = \frac{234.15}{29} = 8.07$ //

d Deviation $= \sqrt{\text{Var}x} = \sqrt{\left(\frac{\Sigma f(x-\bar{x})^2}{\Sigma f}\right)} = \sqrt{\left(\frac{2374.17}{29}\right)} = \sqrt{(81.87)} = 9.05$ //

fficient of Variation $= \frac{\text{Standard Deviation}}{\bar{x}} = \frac{9.05}{17.83} = 0.51$ //

oup B has less Variable Distribution.

C.I	Group B (f)	x	fx	$\lvert x-\bar{x}\rvert$	$\lvert x-\bar{x}\rvert^2$	$f\lvert x-\bar{x}\rvert$	$f\lvert x-\bar{x}\rvert^2$
1-5	2	3	6	17.14	293.78	34.28	587.56
6-10	4	8	32	12.14	147.38	48.56	589.52
11-15	7	13	91	7.14	50.98	49.98	356.86
16-20	20	18	360	2.14	4.58	42.8	91.6
21-25	16	23	368	2.86	8.18	45.76	130.88
26-30	10	28	280	7.86	61.78	78.6	617.8
31-35	4	33	132	12.86	165.38	51.44	661.52
	63		1269			351.42	3035.74

$$\bar{x} = \frac{\Sigma fx}{\Sigma f} = \frac{1269}{63} = 20.14$$

1) Mean Deviation $= \frac{\Sigma f(x-\bar{x})}{\Sigma f} = \frac{351.42}{63} = 5.58$ //

2) Standard Deviation $= \sqrt{\text{Var}x} = \sqrt{\left(\frac{\Sigma f(x-\bar{x})^2}{\Sigma f}\right)} = \sqrt{\left(\frac{3035.74}{63}\right)} = \sqrt{(48.19}$

3) Co-efficient of Variation $= \frac{\text{Standard Deviation}}{\bar{x}} = \frac{6.94}{20.14}$

4) Group B has less Variable dastribution.