iii) COEFFICIENT OF VARIATION

Group A

$CV = \frac{S}{\bar{X}} \cdot 100$

$= \frac{40.47}{17.86} \cdot 100$

$= 2.265 \times 100$

$= 226.5$

Group B

$= \frac{76.28}{38.14} \times 100$

$= 2 \times 100$

$= 200$

iv) Group B has less variable distribution

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STATISTICS
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Q2.

Group A				Group B					
Class boundaries		freq	C.F	Class boundaries	f_x	freq	C.F	mid	f_x
1-5	0.5 - 5.5	0	0	3	0	2	2	3	6
6-10	5.5 - 10.5	7	7	8	49	9	6	8	24
11-15	10.5 - 15.5	10	17	13	130	7	13	13	91
16-20	15.5 - 20.5	2	19	18	36	20	33	18	660
21-25	20.5 - 25.5	1	20	22	20	16	49	23	368
26-30	25.5 - 30.5	5	25	28	125	10	59	28	590
31-35	30.5 - 35.5	4	29	33	116	4	63	33	252
		29	117			63	205		

i) MEAN

Group A

$$\bar{x} = \frac{\sum fx}{\sum f} = \frac{518}{29} = 17.86$$

Group B

$$\frac{2403}{63} = 38.14$$

ii) STANDARD DEVIATION

$$S = \sqrt{\frac{\sum (x_i - \bar{x})^2}{n-1}}$$

$$= \sqrt{\frac{(95.14)^2}{6}}$$

$$= \sqrt{1628.123267}$$

$$= 40.47$$

$$= \sqrt{\frac{(156.86)^2}{6}}$$

$$= \sqrt{\frac{34916.6596}{6}}$$

$$= \sqrt{5819.443267}$$

$$= 76.28$$