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Assignment

CL	x	Group A (F ₁)	F ₁ (x)	F ₁ (x - \bar{x}) ²	Group B (F ₂)	F ₂ (x)	F ₂ (x - \bar{x}) ²
1-5	3	0	0	0	2	6	1734
6-10	8	7	58	5684.58	4	32	4608
11-15	13	10	130	3121.30	7	91	4459
16-20	18	2	36	0.36	20	360	1440
21-25	23	1	23	598.23	16	368	3312
26-30	28	5	140	14281.4	10	280	17920
31-35	33	4	132	30097.32	4	132	22308
	29	$\Sigma f_1 = 29$	$\Sigma F_1(x) = 519$	$\Sigma F_1(x - \bar{x})^2 = 53783.19$	$\Sigma f_2 = 63$	$\Sigma F_2(x) = 1269$	$\Sigma F_2(x - \bar{x})^2 = 55781$

i Mean for Group A = $\frac{\Sigma f_1 x}{\Sigma f_1}$

$$= \frac{519}{29}$$

$$= 17.9$$

Mean for Group B = $\frac{\Sigma f_2 x}{\Sigma f_2}$

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

$$= 20.0$$

Standard Deviation = $\sqrt{\frac{\Sigma f_1 (x - \bar{x})^2}{\Sigma f_1 - 1}}$

$$= \sqrt{\frac{53783.19}{28}}$$

$$= \sqrt{1920.83}$$

$$= 43.83$$

Standard Deviation = $\sqrt{\frac{\Sigma f_2 (x - \bar{x})^2}{\Sigma f_2 - 1}}$

$$= \sqrt{\frac{55781}{19}}$$

$$= \sqrt{2935.84}$$

$$= 54.18$$

Coefficient of Variation = $\frac{SD}{\text{mean}} \times 100$

$$= \frac{43.83}{17.9} \times 100$$

$$= 244.9\%$$

Coefficient of Variation = $\frac{SD}{\text{mean}} \times 100$

$$= \frac{54.18}{20} \times 100$$

$$= 270.9\%$$

Group A has less variable distribution than B