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STA 122

Cl	Group A	Group B	$(x - \bar{x})$	$(x - \bar{x})^2$	$(y - \bar{y})^2$	$(y - \bar{y})$	x	y
1-5	10	2	14.83	219.93	17.14	293.78	3	3
6-10	7	4	9.85	96.63	12.14	147.38	8	8
11-15	10	7	4.83	23.33	7.14	30.98	13	13
16-20	2	20	0.17	0.03	2.14	4.38	18	18
21-25	1	16	5.17	26.73	2.86	8.18	23	23
26-30	5	10	10.17	103.43	7.86	61.78	28	28
31-35	4	4	15.17	230.13	12.86	165.38	33	33
	$\Sigma = 29$	$\Sigma = 63$		$\Sigma(x - \bar{x})^2 = 2374.17$	$\Sigma(y - \bar{y})^2 = 3035.74$			

1) Mean of group A = $\frac{\Sigma fx}{\Sigma f} = \frac{517}{29} = 17.83$

Mean of group B = $\frac{\Sigma fx}{\Sigma f} = \frac{1269}{63} = 20.14$

Standard deviation of group A = $\sqrt{\frac{\Sigma f(x - \bar{x})^2}{\Sigma f}} = \sqrt{\frac{2374.17}{29}} = 9.04$

Standard deviation of group B = $\sqrt{\frac{\Sigma f(y - \bar{y})^2}{\Sigma f}} = \sqrt{\frac{3035.74}{63}} = 6.9$

2. CV = $\frac{\text{Standard deviation}}{\text{mean}} \times 100 = \frac{9.04}{17.83} \times 100 = 50.74\%$ for group A

CV = $\frac{6.9}{20.14} \times 100 = 34.26\%$

3. Group B has less distribution.