

Sumana #4

X	Y	$x - \bar{x}$	$y - \bar{y}$	$(x - \bar{x})^2$	$(y - \bar{y})^2$	$(x - \bar{x})(y - \bar{y})$
9	8	2.5	0.17	6.25	0.0289	0.425
8	7	1.5	0.83	2.25	0.6889	-1.205
7	8	0.5	0.17	0.25	0.0289	0.085
6	10	-0.5	2.17	0.25	4.7089	-1.085
5	8	-1.5	0.17	2.25	0.0289	-0.255
4	6	-2.5	-1.83	6.25	3.3489	4.575
39	47			17.5	8.8339	2.5

$$S_x = \sqrt{\frac{\sum (x - \bar{x})^2}{n-1}} \quad S_x = \sqrt{\frac{17.5}{6-1}} \quad S_x = \sqrt{\frac{17.5}{5}}$$

$$S_x = \sqrt{3.5} \quad S_x = 1.87$$

$$S_y = \sqrt{\frac{\sum (y - \bar{y})^2}{n-1}} \quad S_y = \sqrt{\frac{188.83}{5}} \quad S_y = \sqrt{37.77}$$

$$S_y = 6.14$$

VIVA

X	Y	$x - \bar{x}$	$y - \bar{y}$	$(x - \bar{x})^2$	$(y - \bar{y})^2$	$(x - \bar{x})(y - \bar{y})$
3	4	-1.75	-5.25	3.0625	27.5625	9.1875
4	10	-0.75	0.75	0.5625	0.5625	-0.5625
5	11	0.25	1.75	0.0625	3.0625	-0.4375
7	12	2.25	2.75	5.0625	7.5625	0.4375
19				8.75	38.75	6.1875
						15.25

$$S_x = \sqrt{\frac{(x - \bar{x})^2}{n-1}} = S_x = \sqrt{\frac{8.75}{3}} = S_x = \sqrt{2.91} = 1.70$$

$$S_y = \sqrt{\frac{(y - \bar{y})^2}{n-1}} = S_y = \sqrt{\frac{38.75}{3}} = S_y = \sqrt{12.91} = 3.59$$

$$C = \frac{15.25}{(3)(1.70)(3.59)} = \frac{15.25}{18.329} = 0.832$$