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Estadística

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	6.1875
19	37			8.75	38.75	-15.25

$$S_x = \sqrt{\frac{(x - \bar{x})}{n-1}}$$

$$S_x = \sqrt{\frac{8.75}{3}}$$

$$S_x = \sqrt{2.91} = 1.70$$

$$S_y = \sqrt{\frac{(y - \bar{y})}{n-1}}$$

$$S_y = \sqrt{\frac{38.75}{3}}$$

$$S_y = \sqrt{12.91} = 3.59$$

$$r = \frac{15.25}{(3)(1.70)(3.59)} = \frac{15.25}{17.829} = 0.832$$

$$\bar{x} = 6.5$$

$$\bar{y} = 7.43$$

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	-0.93	2.25	0.6889	-1.245
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	8.8337	2.5

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

$$s_x = \sqrt{\frac{17.5}{6-1}}$$

$$s_x = \sqrt{\frac{17.5}{5}}$$

$$s_x = \sqrt{3.5}$$

$$s_x = 1.87$$

$$s_y = \sqrt{\frac{(y - \bar{y})^2}{n-1}}$$

$$s_y = \sqrt{\frac{8.8337}{6-1}}$$

$$s_y = \sqrt{1.77}$$

$$s_y = 1.33$$

$$r = \frac{2.5}{(5)(1.87)(1.33)}$$

$$r = \frac{2.5}{12.43}$$

$$= 0.201$$

X