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Área: Estadística aplicada a la Educación

Grado: 5º. Carrera: Magisterio de Educación Preprimaria

Actividad: 4

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Catedrática: Freddy Barrios

X	Y	X - $\bar{X}$	Y - $\bar{Y}$	(X - $\bar{X}$) ²	(Y - $\bar{Y}$) ²	(X - $\bar{X}$)(Y - $\bar{Y}$)
9	9	2.5	0.17	6.25	0.0289	0.425
8	7	1.5	-0.83	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	6	-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	9.9334	2.5

$$\bar{X} = \frac{39}{6} = \bar{X} = 6.5$$

$$\bar{Y} = \frac{47}{6} = \bar{Y} = 7.83$$

$$S_X = \sqrt{\frac{17.5}{6-1}} \quad S_X = \sqrt{\frac{17.5}{5}} \quad S_X = \sqrt{3.5} \quad S_X = 1.87$$

$$S_Y = \sqrt{\frac{9.9334}{6-1}} \quad S_Y = \sqrt{\frac{9.9334}{5}} \quad S_Y = \sqrt{1.9867} \quad S_Y = 1.41$$

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

$$C_d = (0.20)^2 \cdot 100$$

$$C_d = 0.04 \cdot 100 = 4\%$$

$$r = \frac{2.5}{12.44}$$

$$r = 0.20$$

X	Y	X-X	Y-Y	(X-X) ²	(Y-Y) ²	(X-X)(Y-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

$$\bar{X} = \frac{19}{4} = \bar{X} = 4.75$$

$$\bar{Y} = \frac{37}{4} = \bar{Y} = 9.25$$

$$SX = \sqrt{\frac{8.75}{4-1}} \quad SX = \sqrt{\frac{8.75}{3}} \quad SX = \sqrt{2.92} \quad SX = 1.71$$

$$SY = \sqrt{\frac{38.75}{4-1}} \quad SY = \sqrt{\frac{38.75}{3}} \quad SY = \sqrt{12.92} \quad SY = 3.59$$

$$r = \frac{15.25}{(3)(1.71)(3.59)}$$

$$Cd = (0.83)^2 \cdot 100$$

$$Cd = 0.69 \cdot 100 = 69\%$$

$$r = \frac{15.25}{18.42}$$

$$r = 0.83$$