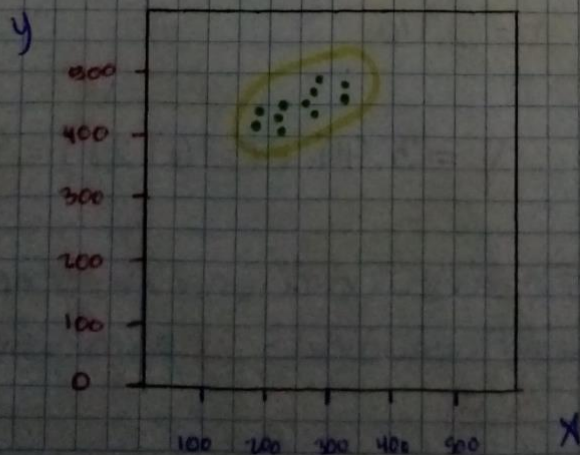


Alejandra Mendoza

Tarea No. 8

X	Y	X ²	Y ²	XY
189	402	35,721	161,604	75,978
190	404	36,100	163,216	76,760
208	412	43,264	169,744	85,696
227	425	51,529	180,625	96,475
239	429	57,121	184,041	102,531
252	436	63,504	190,096	109,872
257	440	66,049	193,600	113,080
274	447	75,076	199,809	122,478
293	458	85,849	209,764	134,194
308	469	94,864	219,961	144,452
316	469	99,856	219,961	148,204
2,753	4,791	708,933	2,092,421	1,209,720



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$$r = \frac{N \sum (xy) - \sum x \sum y}{\sqrt{[N \sum x^2 - (\sum x)^2][N \sum y^2 - (\sum y)^2]}}$$

$$r = \frac{11 \cdot 1,209,720 - 2,753 \cdot 4,791}{\sqrt{[11 \cdot 708,933 - 2,753^2][11 \cdot 2,092,421 - 4,791^2]}}$$

$$r = \frac{13,306,920 - 13,189,623}{\sqrt{[7,798,263 - 7,579,009][23,016,631 - 22,953,681]}}$$

$$r = \frac{117,297}{\sqrt{[219,254][62,950]}}$$

$$r = \frac{117,297}{13,802,039,300}$$

Correlación
positiva perfecta

$$r = \frac{117,297}{117,482.08} = 1$$

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Tarea No. 8

$$a = \frac{\sum x^2 \sum y - \sum x \sum (xy)}{N \sum x^2 - (\sum x)^2} \quad a = \frac{708,933 \cdot 4,791 - 2,753 \cdot 1,209,720}{11 \cdot 708,933 - 2,753^2}$$

$$a = \frac{3,396,498,003 - 3,330,359,160}{7,798,263 - 7,579,009}$$

$$a = \frac{66,138,843}{219,254} = a = 301.65$$

$$b = \frac{N \sum (xy) - \sum x \sum y}{N \sum x^2 - (\sum x)^2} \quad b = \frac{11 \cdot 1,209,720 - 2,753 \cdot 4,791}{11 \cdot 708,933 - 2,753^2}$$

$$b = \frac{13,306,920 - 13,189,623}{7,798,263 - 7,579,009}$$

$$b = \frac{117,297}{219,254} \quad b = 0.53$$

$$y = a + b(x) \quad y = 301.65 + 0.53(325) = 473.90$$

R// La predicción para las ventas de la compañía en este año sería de 473.90