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Materia: Estadística Descriptiva

Cuatrimestre: 3er. Cuatrimestre

Trabajo: Examen

Carlos Enrique Guillen Bolanos

| Periodo | Demanda | x^2 | y^2 | periodo a_1 |
|---------|---------|-------|--------------------|---------------|
| x | y | | | |
| 1 | 1300 | 1 | 1,690,000 | |
| 2 | 1250 | 4 | 1,562,500 | x4 |
| 3 | 1400 | 9 | 1,960,000 | 1300 |
| 4 | 1370 | 16 | 1,876,000 | 2500 |
| 5 | 1450 | 25 | 2,102,500 | 4200 |
| 6 | 1480 | 36 | 2,190,400 | 5480 |
| 7 | 1500 | 49 | 2,250,000 | 7,250 |
| 8 | 1350 | 64 | 2,402,500 | 8,880 |
| 36 | 11,300 | 204 | $1,36 \times 10^7$ | 10,500 |
| | | | | 12,400 |
| | | | | 52,510 |

$$b = \frac{N \sum x \cdot y - \sum x \sum y}{N \sum x^2 - (\sum x)^2}$$

$$b = \frac{(11)(52,510) - (36)(11,300)}{(11)(204) - (36)^2} = \frac{65,790}{540}$$

$$b = \frac{(472,540) - (406,800)}{(1836) - (11296)} = \frac{121,83}{-9460}$$

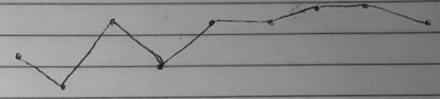
$$a = \frac{\sum y}{N} - b \cdot \frac{\sum x}{N}$$

$$a = \frac{(11,300)}{11} - (121,83) \left(\frac{36}{11} \right) = \frac{6,914,12}{11}$$

$$= \frac{(11,300)}{11} - (9,385,88) = \frac{768,23}{11}$$

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20 000
18 000
16 000
14 000
12 000
10 000
8000
6000
4000
2000



1 2 3 4 5 6 7 8 9