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Nombre del trabajo: Ejercicio

Materia: Estadística descriptiva

Grado: 3er cuatrimestre

Grupo: A

Comitán de Domínguez Chiapas a 31 de julio de 2020.

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| Periodo X | Demanda Y | X^2 | Y^2 | $X \cdot Y$ |
|---------------------------------|--------------|-----------|------------------|---------------|
| 1 | 450 | 1 | 202,500 | 450 |
| 2 | 650 | 4 | 422,500 | 1,300 |
| 3 | 700 | 9 | 490,000 | 2,100 |
| 4 | 880 | 16 | 774,400 | 3,520 |
| 5 | 980 | 25 | 960,400 | 4,900 |
| <u>$\Sigma = 15$</u> | <u>3,660</u> | <u>55</u> | <u>2,849,800</u> | <u>12,270</u> |

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$$b = \frac{N_x \sum X_x Y - \sum X_x \sum Y}{N_x \sum x^2 - (\sum x)^2}$$

$$b = \frac{5 \times 12,270 - 15 \times 3660}{5 \times 55 - 15^2}$$

$$b = \frac{61350 - 54900}{275 - 225}$$

$$b = \frac{6450}{50}$$

$$\underline{b = 129}$$

$$a = \frac{\sum Y - b \times \sum x}{N}$$

$$a = \frac{3660 - 129 \times 15}{5}$$

$$a = \frac{3660 - 1935}{5}$$

$$a = \frac{1725}{5}$$

$$\underline{a = 345}$$

$$Y = a + b \times X$$

$$Y_{(6)} = 345 + 129(6)$$

$$Y_{(6)} = 345 + 774$$

$$\underline{Y = 1,119}$$

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