



**CUADRO SINOPTICO:
UNIDAD IV**

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LICENCIATURA EN ENFERMERIA

BIOESTADÍSTICA

TAPACHULA, CHIAPAS

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Las estaturas y pesos de 10 jugadores de baloncesto de un equipo son:

(x) Estatura	(y) Peso	$x \cdot y$	x^2	y^2
186	85	15810	34596	7225
189	85	16085	35721	7225
190	86	16340	36100	7396
192	90	17280	36864	8100
193	87	16791	37249	7569
193	91	17563	37249	8281
198	93	18414	34204	8649
201	103	20703	40401	10604
203	100	20300	41204	10000
<u>205</u>	<u>107</u>	<u>20705</u>	<u>42025</u>	<u>10201</u>
1950	921	179971	380618	85255

1. El coeficiente de correlación que existe

$$1. SC_x = \sum x^2 - \frac{(\sum x)^2}{n} = 380618 - \frac{(1950)^2}{10} = \frac{3802500}{10}$$

$$SC_x = 380618 - 380250 = 368$$

$$SC_x = \underline{368}$$

$$2. SC_y = \sum y^2 - \frac{(\sum y)^2}{n} = 85255 - \frac{(921)^2}{10} = \frac{848241}{10} = 84824.1$$

$$SC_y = 85255 - 84824.1 = 430.9$$

$$SC_y = \underline{430.9}$$

$$3. SC_{xy} = \sum xy - \frac{(\sum x)(\sum y)}{n} = 179971 - \frac{(1950)(921)}{10} = 179595$$

$$SC_{xy} = 179971 - 179595 = 376$$

$$SC_{xy} = \underline{376}$$

$$r = \underline{0.94}$$

$$4. r = \frac{SC_{xy}}{\sqrt{SC_x} \sqrt{SC_y}} = \frac{376}{\sqrt{368} \sqrt{430.9}} = \frac{376}{398.20} = 0.94$$

② Datos

$$SC_x = 368$$

$$SC_y = 430.9$$

$$SC_{xy} = 376$$

$$1-b_1 = \frac{SC_{xy}}{SC_x} = \frac{376}{368} = b_1 = 1.02$$

$$2: \bar{x} = 195 \quad \bar{y} = 92.1$$

$$3: b_0 = \bar{y} - b_1 * \bar{x}$$

$$b_0 = 92.1 - 1.02 * 195 =$$

$$b_0 = 92.1 - 198.9 = b_0 = \underline{-106.8}$$

$$\textcircled{3} \text{MRL } \hat{y} = b_0 + b_1 * \hat{x}$$

$$\text{MRL } \hat{y} = -106.8 + 1.02 * 208 = 105.36 \text{ kg}$$
$$-106.8 + 212.16$$

$$\text{MRL } \hat{x} = \frac{\hat{y} - b_0}{b_1}$$

$$\text{MRL } \hat{x} = \frac{88 - (-106.8)}{1.02} = \frac{194.8}{1.02}$$

$$\text{MRL } \hat{x} = 190.9 \text{ cm}$$

BIBLIOGRAFIA

- Apuntes de la clase de bioestadística