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**MATERIA : Bioestadística**

**LICENCIATURA EN ENFERMERIA.**

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**Tarea cuarto parcial**

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

x	y	xy	x <sup>2</sup>	y <sup>2</sup>
Estatura	peso			
186	85	15810	34596	7225
189	85	16065	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	39204	8681
201	103	20703	40401	10609
203	100	20300	41209	10000
205	101	20705	42025	10201
<u>1950</u>	<u>921</u>	<u>179,971</u>	<u>360,619</u>	<u>85,255</u>

1..

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

$$SC_x = 380618 - 380250 = 368 \quad SC_x = \underline{368}$$

2..

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

$$= 8482.41 \quad SC_y = 85255 - 8482.41 = \underline{430.9}$$

3..

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

$$= 179590 \quad SC_{xy} = 179971 - 179595 = \underline{376}$$

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

$$r = 0.94$$

② Datos

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

$$SC_y = 430.9 \quad = 1.02$$

$$SC_{xy} = 376$$

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

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

$$b_0 = 92.1 - 1.02 \cdot 195 =$$

$$b_0 = 92.1 - 198.9 \quad b_0 = -106.8$$

③

$$MRL \hat{y} = b_0 + b_1 \bar{x}$$

$$= -106.8 + 1.02 \cdot 208$$

$$= -106.8 + 212.16 = 105.36 \text{ kg.}$$

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

$$MRL \hat{x} = \frac{88 + 106.8}{1.02} = \frac{194.8}{1.02}$$

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