

① Relación entre consumo de Proteínas y masa muscular

P.	Consumo de Prot. (g)	Masa Muscular
1	80	60
2	100	66
3	90	62
4	85	61
5	110	67
6	95	63

$$\bar{x} = \frac{80 + 100 + 90 + 85 + 110 + 95}{6} = 93.33$$

$$\bar{y} = \frac{60 + 66 + 62 + 61 + 67 + 63}{6} = 63$$

x	y	$x_i - \bar{x}$	$y_i - \bar{y}$	$(x_i - \bar{x})(y_i - \bar{y})$	$(x_i - \bar{x})^2$	$(y_i - \bar{y})^2$
80	60	-13.33	-3	39.99	177.68	9
110	66	6.67	2	13.34	44.48	4
90	62	3.33	-1	-3.33	11.08	1
85	61	-8.33	-2	16.66	69.38	4
110	67	16.67	4	66.68	227.88	16
95	63	1.67	0	0	2.78	0
				$\Sigma 140$	583.28	39

$$r = \frac{140}{\sqrt{583.28 \times 39}} = 0.994176963 \times 100 = 99.41769635$$

$$140.82$$

Es una Relación Fuerte ya que se acerca al 1

Continuación 5

$$\hat{y} = B_0 + B_1 x$$

$$B_1 = \frac{140}{583.28} = B_1 = 0.24$$

$$B_0 = 63 - 0.24(93.33) = 22.392 = 40.61$$

$$\hat{y} = 40.61 + 0.24 x$$

Norm



① Relacion entre consumo de Proteinas y masa muscular

P.	x Consumo de Prot. (g)	y Masa Muscular
1	80	60
2	100	65
3	90	62
4	85	61
5	110	67
6	95	63

$$\bar{x} = \frac{80 + 100 + 90 + 85 + 110 + 95}{6} = 93.33$$

$$\bar{y} = \frac{60 + 65 + 62 + 61 + 67 + 63}{6} = 63$$

r =

x	y	$x_i - \bar{x}$	$y_i - \bar{y}$	$(x_i - \bar{x})(y_i - \bar{y})$	$(x_i - \bar{x})^2$	$(y_i - \bar{y})^2$	
80	60	-13.33	-3	39.99	177.68	9	$583.28 \times 39$
100	65	6.67	2	13.34	44.48	4	$\sqrt{19,83152}$
90	62	3.33	-1	-3.33	11.08	1	
85	61	-8.33	-2	16.66	69.38	4	$\sqrt{19,83152}$
110	67	16.67	4	66.68	277.88	16	$R = 140.82$
95	63	1.67	0	0	2.78	0	
				$\Sigma 140$	583.28	34	

$$\frac{140}{140.82} = 0.994176963 \times 100 = 99.41769635 \quad //$$

Es una Relacion Fuerte ya que se acerca al 1

Continuación 5

$$\hat{y} = B_0 + B_1 x$$

$$B_1 = \frac{140}{583.28} = B_1 = 0.24 \quad //$$

$$B_0 = 63 - 0.24(93.33) = 22.3192 \approx 40.61$$

$$\hat{y} = 40.61 + 0.24 x \quad //$$



	1	2	3	total	Fib
M	12	18	10	40	
F	15	12	13	30	
	27	30	23	70	

$$E_i = \frac{(F \times TC)}{\text{general}}$$

$$M = \frac{40 \times 27}{70} = \frac{1080}{70} = 15.42 \quad (0_1 - E_1) \quad 12 - 15.42 = -3.42$$

$$M_2 = \frac{40 \times 30}{70} = \frac{1200}{70} = 17.14 \quad 18 - 17.14 = 0.86$$

$$M_3 = \frac{40 \times 23}{70} = \frac{920}{70} = 13.14 \quad 10 - 13.14 = -3.14$$

$$F_1 = \frac{30 \times 27}{70} = \frac{810}{70} = 11.57 \quad 15 - 11.57 = 3.43$$

$$F_2 = \frac{30 \times 30}{70} = \frac{900}{70} = 12.85 \quad 12 - 12.85 = -0.85$$

$$F_3 = \frac{30 \times 23}{70} = \frac{690}{70} = 9.85 \quad 13 - 9.85 = 3.15$$

$$\sum (O_i - E_i)^2 = 3.2474 //$$

$$M_1 = \frac{0.1364}{15.42} = 0.0114$$

$$F_1 = \frac{11.76}{11.57} = 1.016$$

$$M_2 = \frac{0.73}{17.14} = 0.043$$

$$F_2 = \frac{0.72}{12.85} = 0.05$$

$$M_3 = \frac{16}{14.28} = 1.12$$

$$F_3 = \frac{9.92}{9.85} = 1.007$$

Nor

# Problema 3

	1	2	3	total
M	12	18	10	40
F	15	12	13	40
	27	30	23	70

$$E_i = \frac{(\sum F \times TC)}{\text{general}}$$

$$(O_i - E_i)$$

$$M = \frac{40 \times 27}{70} = \frac{1080}{70} = 15.42 \quad 12 - 15.42 = -3.42$$

$$M_2 = \frac{40 \times 30}{70} = \frac{1200}{70} = 17.14 \quad 18 - 17.14 = 0.86$$

$$M_3 = \frac{40 \times 23}{70} = \frac{920}{70} = 13.14 \quad 10 - 13.14 = -3.14$$

$$F_1 = \frac{30 \times 27}{70} = \frac{810}{70} = 11.57 \quad 15 - 11.57 = 3.43$$

$$F_2 = \frac{30 \times 30}{70} = \frac{900}{70} = 12.86 \quad 12 - 12.86 = -0.86$$

$$F_3 = \frac{30 \times 23}{70} = \frac{690}{70} = 9.86 \quad 13 - 9.86 = 3.14$$

$$\sum (O_i - E_i)^2 = 3.2474 //$$

$$\frac{(O_i - E_i)^2}{E_i}$$

$$0.1764$$

$$M_1 = \frac{0.1764}{15.42} = 0.0114$$

$$F_1 = \frac{11.76}{11.57} = 1.016$$

$$M_2 = \frac{0.73}{17.14} = 0.043$$

$$F_2 = \frac{0.72}{12.86} = 0.05$$

$$M_3 = \frac{16}{14.28} = 1.12$$

$$F_3 = \frac{9.92}{9.86} = 1.007$$



Problema 4

DIA  MES  AÑO

	Boat	Motor	Price	Total
A Sedentario	20	15	5	40
B Moderado	10	25	15	50
C Activo	15	20	25	60
	45	60	45	150

① ② ③

	$(a_i - E_i) =$	$(a_i - E_i)^2$
$A_1 = \frac{40+45}{150} = \frac{85}{150} = 0.56$	$20 - 0.56 = 19.44$	$377.9$
$A_2 = \frac{40+60}{150} = \frac{100}{150} = 0.66$	$15 - 0.66 = 14.34$	$205.6$
$A_3 = \frac{40+45}{150} = \frac{85}{150} = 0.56$	$5 - 0.56 = 4.44$	$19.7$
$B_1 = \frac{30+45}{150} = \frac{75}{150} = 0.5$	$10 - 0.5 = 9.5$	$90.25$
$B_2 = \frac{50+60}{150} = \frac{110}{150} = 0.73$	$25 - 0.73 = 24.27$	$589.1$
$B_3 = \frac{60+45}{150} = \frac{105}{150} = 0.7$	$15 - 0.7 = 14.3$	$204.4$
$C_1 = \frac{60+45}{150} = \frac{105}{150} = 0.7$	$15 - 0.7 = 14.3$	$204.4$
$C_2 = \frac{60+60}{150} = \frac{120}{150} = 0.8$	$25 - 0.8 = 24.2$	$585.6$
$C_3 = \frac{40+45}{150} = \frac{85}{150} = 0.56$	$25 - 0.56 = 24.44$	$597.3$
	$\Sigma$	$2651.1$

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