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Nombre del trabajo: Ejercicios

Materia: Probabilidad Y Estadística

Grado: 5to cuatrimestre

Grupo: A Recursos Humanos

Comitán de Domínguez Chiapas a 01 de Abril de 2022

Ejercicio 1   Alexa Gabriela Rodríguez Galindo

100	31	65	38	49	72	45	31
100	92	33	45	67	85	50	89
90	100	98	69	77	88	66	90
56	98	88	65	88	94	63	93
100	49	80	92	92	38	78	94
73	56	84	78	100	47	84	50
38	52	91	67	49	68	92	45
91	77	100	45	56	74	100	50

Rango

$\frac{31 - 100 + 1}{7} = 10$

Intervalo	Fi	%Fi	Fia	%Fia	XI	FiXi	xi^2	$FiXi^2$
31-40	6	9.37	6	9.37%	35.5	213	1260.25	7561.5
41-50	11	17.18	17	26.56%	45.5	500.5	2070.25	22772.75
51-60	4	6.25	21	32.81%	55.5	222	3080.25	12321
61-70	8	12.5	29	45.31%	65.5	524	4290.25	34322
71-80	8	12.5	37	57.81%	75.5	604	5700.25	45602
81-90	9	14.06	46	71.87%	85.5	769.5	7310.25	65792.25
91-100	18	28.12	64	100%	95.5	1719	9120.25	164164.15
	64					4552		352536

~~tromana~~ Media

$\bar{x} \dfrac{\sum Fi \cdot xi}{n} \quad \dfrac{4552}{64} = 71.125$

Mediana

$Me = Lit + \dfrac{\frac{z - Fia - 1 \cdot qi}{Fi}}{}$

$me = 71 + \dfrac{\frac{64}{2} - 29}{8} \cdot 9 = 74.375$

$S^2 = \dfrac{\sum Fixi^2 - \frac{(\sum Fi\bar{xi})^2}{n}}{n-1}$

$S^2 = \dfrac{382,536 - \frac{(4552)^2}{64}}{63} = 456.74$

$\sqrt{456.74} = 21.37$

$MO = \dfrac{Lit Fi - Fi - 1}{(Fi - Fi \cdot 7) + (Fi - Fi - 1)}$

$MO = \dfrac{91 + 18 - 9}{(18 - 9) + (18 - 0)} \cdot 9 = 94$

Ejercicio 2

Alexa Gabriela Rodríguez Galindo

Intervalo 5

90 41 71 79 71 44
45 56 79 42 68 45
70 41 75 41 53 54
78 42 66 45 64 58
55 56 73 56 42 64
45 64 79 49 90 45
90 87 80 85 90 84

Rango

$$\frac{41 - 90 + 1}{5} = 10$$

Intervalo	Fi	%Fi	Fiq	%Fiq	$\overline{x_1}$	F_1x_1	x_1^2	F_1x^2
41 - 50	13	30.95	13	30.95	45.5	591.5	2,070.25	26,913.25
51 - 60	7	16.66	20	47.61	55.5	388.5	3,080.25	21,561.75
61 - 70	6	14.28	26	61.90	65.5	395	4,290.25	25.741.5
71 - 80	9	21.42	35	83.33	75.5	679.5	5,700.25	51,302.25
81 - 90	7	16.66	42	100	85.5	598.5	7,310.25	51,171.75
	42					2,653		176,6945

Mediana

$$\overline{x} = \frac{\Sigma F_1 \overline{x_1}}{n} \qquad \frac{2,653}{42} = 63.16$$

Mediana

$$Mc = Li + \frac{\frac{n}{2} - Fia - 1.ai}{Fi}$$

$$Mc = \frac{26 + 21 - 20 \cdot 9}{6} = 27.5$$

$$S^2 = \frac{\Sigma F_1 \overline{x_1}^2 - \frac{(\Sigma F_1 x_1)^2}{n}}{n-1}$$

$$S^2 = \frac{176,694.5 - \frac{(2653)}{42}}{41} = 222.27$$

$$\sqrt{222.27} = 14.90$$

$$MO = Li + \frac{F_1 - F_1 - 1}{(F_1 - F_1 - 1) + (F_1 - F_1 + 1)}$$

$$MO = \frac{41 + 13 - 0}{(13 - 0) + (13 + 7)} \cdot 9 = 47.13$$