Nombre de alumnos: ezequiel francisco pascual

Nombre del profesor: Jorge enrique

Nombre del trabajo: ejercicios

Materia: probabilidad y estadística

Grado: 5to cuatrimestre

Grupo: A

Comitán de Domínguez Chiapas a 03 de abril de 2022.

7

100	31	65	38	49	72	45	31
100	92	33	45	67	85	58	89
90	100	98	69	77	80	66	90
56	98	88	65	88	99	63	93
100	99	80	92	92	38	78	94
93	56	89	78	100	47	89	50
38	52	91	67	49	68	92	45
91	77	100	45	56	74	100	50

intervalo

Rango

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

intervalo	Fi	%fi	fra	%fia	$\bar{x_i}$	fixi	x_i^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	501.5	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	164164.5
	64					4552		352536

mediana media

$\bar{X} = \frac{\sum fixi}{n}$

$\bar{X} = \frac{4552}{64} = 71.125$

moda

$mo = Li + \frac{fi - fi-1}{(fi-fi-1)(fi-fi+1)}$ ai

$mo = \frac{41 + 13 - 0}{(13-0)(13-7)}{}^{9} = 47.125$

$S^2 = \frac{\sum fi\bar{x}i^2 - \frac{(\sum fi\bar{x}i)^2}{n}}{n-1}$

$S^2 = \frac{176,694.5 - \frac{(2,653)^2}{42}}{41} = 456.147$

$\sqrt{456.147} = 21.37$

mediana

$mc = \frac{1^o + \frac{n}{2} - fia-1}{fi} \cdot ai$

$me = \frac{96 + 21 - 20}{6}{}^{9} = 94$

90	41	71	79	71	44
45	56	74	72	68	45
70	14	75	41	53	54
78	42	66	45	64	58
55	56	73	56	42	64
45	67	78	49	90	45
90	87	80	85	90	84

$\frac{(90-41)}{5} = 10$

Intervalos	Fi	fi%	fia	fia%	$\bar{x}_i$	$f_i x_i$	x_i^2	$f_i x^2$
41-50	13	30.95	13	30.95	45.5	591.5	2,079.25	26 915.25
51-60	7	16.66	20	47.61	55.5	388.5	3080.25	27 561.75
61-70	6	14.28	26	61.90	65.5	393	429.25	25 741.5
71-80	9	21.42	35	83.33	75.5	674.5	5700.25	51302.25
81-90	7	16.66	42	100%	85.5	598.5	7310.25	51171.75
	42					2635		176674.5

$\bar{X} = \frac{\sum f_i \bar{x}_i}{n} \quad \frac{2,653}{42} = 63.16$

$me = \frac{Li + \frac{n}{2} - fia-1 \cdot a}{fia} \quad me = \frac{26 + 21 - 20 \cdot 9}{6} = 27.5$

$S^2 = \frac{\sum f_i \bar{x}_i^2 - \frac{(\sum f_i \bar{x}_i)^2}{n}}{n-1} \quad S^2 = \frac{176694.5 - \frac{(2653)^2}{42}}{41} = 229.27$

$\sqrt{222.27} = 14.90$

$mo = \frac{Li \Delta fi - fi-1}{(\Delta fi - fi-1) + (\Delta fi - fi+1)} \quad Mo = \frac{41 + 13 - 0}{(13-0) + (13-7)} \cdot 9 = 47.15$