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**Nombre del trabajo: Datos
agrupados**

Materia: Estadística

PASIÓN POR EDUCAR

Grado: 1er cuatrimestre

Grupo: A

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26/11/21

45	100	65	38	49	72	41	76
100	92	63	45	67	85	50	89
90	100	48	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:

$$h = \frac{(100 - 38) + 1}{7} = \frac{62 + 1}{7} = \frac{63}{7} = 9$$

Intervalo	f_i	$\%f_i$	F_{iA}	$\%F_{iA}$	\bar{x}_i	$f_i \bar{x}_i$	\bar{x}_i^2	$f_i \bar{x}_i^2$
38 - 46	8	12.5%	8	12.5%	42	336	1764	14112
47 - 55	8	12.5%	16	25%	51	408	2601	20808
56 - 64	5	7.81%	21	32.81%	60	300	3600	18000
65 - 73	9	14.06%	30	46.87%	69	621	4761	42849
74 - 82	7	10.93%	37	57.81%	78	546	6084	42588
83 - 91	11	17.18%	48	75%	87	957	7569	83259
92 - 100	16	25%	64	100%	96	1536	9216	147456
	$\Sigma f_i = 64$					4704		369072

$$\bar{x} = \frac{4704}{64} = 73.5$$

$$Me = 74 + \frac{32 - 30}{7} \cdot 8 = 76.28$$

$$Mo = 92 + \frac{16 - 11}{(16 - 11) + (16 + 0)} \cdot 8 = 93.904$$

$$s^2 = \frac{369072 - \frac{(4704)^2}{64}}{63} = 370.28$$

$$s = \sqrt{370.28} = 19.24$$

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79	75	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	41	64
45	67	79	49	44	45
90	67	80	85	90	84

Rango:

$$R = \frac{(90 - 41) + 1}{5} = \frac{50}{5} = 10$$

Intervalos	f_i	$\%f_i$	F_{i-1}	$\%F_{i-1}$	\bar{x}_i	$f_i \bar{x}_i$	\bar{x}_i^2	$f_i \bar{x}_i^2$
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	393.	4,290.25	25,741.5
71 - 80	11	26.19%	37	88.09%	75.5	830.5	5,700.25	62,702.75
81 - 90	5	11.90%	42	100%	85.5	427.5	7,310.25	36,551.25
	$\Sigma f_i = 42$					2631		173,470.5

$$\bar{x} = \frac{2631}{42} = 62.64$$

$$Me = 61 + \frac{21 - 20}{6} \cdot 9 = 62.5$$

$$M_0 = 41 + \frac{13 - 0}{(13 - 0) + (13 - 1)} \cdot 9 = 47.15$$

$$s^2 = \frac{173,470.5 - \frac{(2631)^2}{42}}{41} = 211.15$$

$$s = \sqrt{211.15} = 14.53$$