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Díaz

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Nombre del trabajo: Datos agrupados

Materia: Estadística descriptiva

Grado: tercer cuatrimestre

Grupo: A

2020.

Comitán de Domínguez Chiapas a 10 de septiembre de

Ejercicio 1

50	30	50	21	40
30	49	25	50	47
29	46	34	48	25
44	33	49	40	33
31	39	43	43	35
28	23	44	44	21

Intervalo	Frecuencia	% Fi	Fta	% Fta	Xi	FiXi	Xi ²	FiXi ²
21-26	5	16.67%	5	16.67%	23.5	117.5	552.25	2761.25
27-32	5	16.67%	10	33.33%	29.5	147.5	870.25	4351.25
33-38	4	13.33%	14	46.67%	35.5	142	1260.25	31041
39-44	8	26.67%	22	73.33%	41.5	332	1722.25	13778
45-50	8	26.67%	30	100%	47.5	380	2256.25	18050
					total =	1119	Total =	43981.5

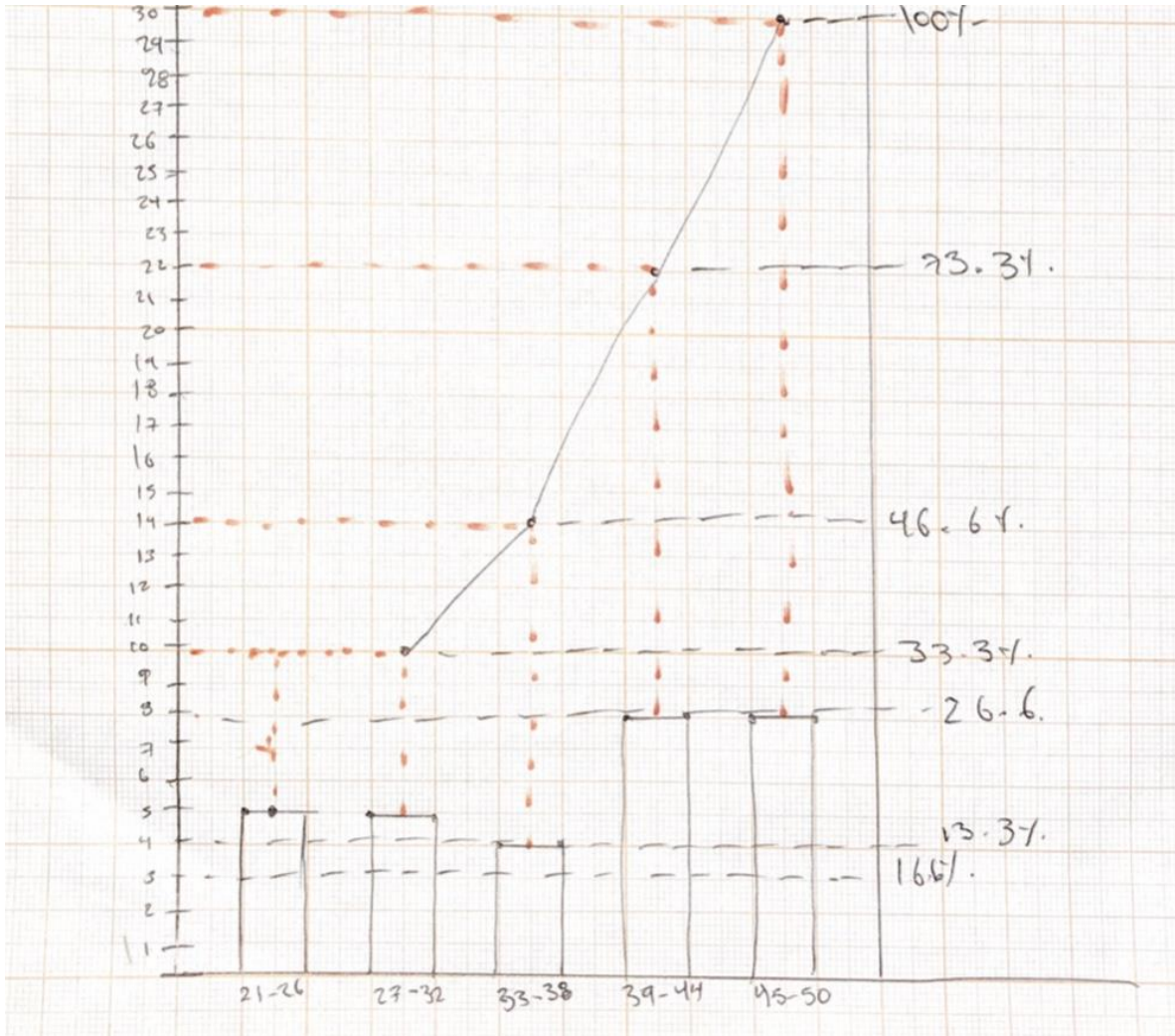
$$a = \frac{(50 - 21) + 1}{5} = \frac{30}{5} = 6 \leftarrow \text{al } 5$$

$$\bar{X} = \frac{1119}{30} = 37.3 \quad \text{V.S} = 43981.5 - \frac{(1119)^2}{30} = 8.79$$

$$M_c = 39 + \frac{15 - m}{8} \cdot 6$$

$$M_c = 34 + \frac{15}{8} \cdot 6 = 39.75 \quad S^2 = 77.33 \quad \sqrt{8.79}$$

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Ejercicio 2

33	56	80	42	68	33
70	40	75	41	53	54
78	42	66	45	64	58
55	56	73	56	41	64
39	67	79	49	44	80

Intervalo	Frecuencia	% f _i	f _{cu}	% f _{cu}	X _i	F _i X _i	X _i ²	F _i X _i ²
33-38	2	6.6%	2	6.6%	35.5	71	1260.25	2520.5
39-44	7	23.3%	9	30%	41.5	290.5	1722.25	12055.25
45-50	2	6.6%	11	36.6%	47.5	95	2256.25	4512.5
51-56	6	20%	17	56.6%	53.5	321	2862.25	17173.5
57-62	1	3.3%	18	60%	59.5	59.5	3540.25	3540.25
63-68	5	16.6%	23	76.6%	65.5	327.5	4290.25	21451.25
69-74	2	6.6%	25	83.3%	71.5	143	5112.25	10224.5
75-80	5	16.6%	30	100%	77.5	387.5	6006.25	30031.25
		49.6%				3000		
					Totales =	1695		Totales = 101509.5

$$k_1 = \frac{(100-33)+1}{8} = \frac{48}{8} = 6 \text{ k}^{\text{da}}$$

$$\bar{X} = \frac{1695}{30} = 56.5$$

$$M_0 = \frac{39 + 7 - 2}{(7-2) + (7-2)} \cdot 6 = 42$$

$$M_k = \frac{39 + 15 - 11}{6} \cdot 6 = 55$$

$$\text{Varianza} = \frac{101509.5 - \left(\frac{1695}{30}\right)^2}{29} = 198$$

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$$\text{Desviación estándar} = \sqrt{198} = 14.07$$

