MARIANA LIZETH HERRERA PÉREZ

LIC. PSICOLOGÍA

1er. CUATRIMESTRE

Mariana Lizeth Herrera Peier

48 - 48 - 48 - 49 - 49 - 54 - 55 - 55
56 - 56 - 56 - 57 - 60 - 66 - 67 - 67
68 - 68 - 69 - 76 - 76 - 76 - 78 - 80
85 - 87 - 87 - 88 - 90 - 90 - 92 - 93
95 - 97 - 97 - 97 - 97 - 98 - 98 - 98
98 - 99 - 100 - 100 - 100 - 100 - 100 - 103
104 - 105 - 105 - 106 - 107 - 109 - 111 - 111

Rango $\frac{(111-48)+1}{8} = \frac{64}{8} = 8 = (7)$

	Intervalo	Fi	%·fi	fia	%·fia	X_i	Fix_i	X_i^2
①	48 - 55 = 8	14.28	8	14.2%	51.5	412	2,652.25
②	56 - 63 = 5	8.92	13	23.21%	59.5	297.5	3,540.25
③	64 - 71 = 6	10.7	19	33.9%	67.5	405	4,290.25
④	72 - 79 = 4	7.14	23	41.07%	75.5	302	5,700.25
⑤	80 - 87 = 4	7.14	27	48.21%	83.5	334	6,972.25
⑥	88 - 95 = 6	10.7	33	58.9%	91.5	549	8,372.25
⑦	96 - 103 = 15	26.7	48	85.71%	99.5	1,492.5	9,900.25
⑧	104 - 111 = 8	14.28	56	100%	107.5	860	11,556.25
		56				4,652	

Fix_i^2

① 21,218
② 17,701.25
③ 25,741.5
④ 22,801
⑤ 27,889
⑥ 50,233.5
⑦ 148,503.75
⑧ 92,538

= 406,538

Media $\bar{X} = \frac{\Sigma f_i x_i}{n} = \frac{4652}{56} = 83.07$

Mediana

$$L_1 + \frac{\frac{n}{2} - f_{ia-1}}{f_1} \cdot a_1$$

$\frac{56}{2} = 28$

$\frac{88 + 28 - 27}{6} \times 7 = 89.16$

Moda

$$M_o = L_1 + \frac{f_1 - f_{1-1}}{(f_1 - f_{i-1}) + (f_1 - f_{i+1})} \cdot a_1$$

$96 + \frac{15 - 6}{(15-6) + (15-8)} \cdot 7 = 99.93$

$$S^2 = \frac{\Sigma f_i x_i^2 - \frac{(f_i \bar{x}_i)^2}{n}}{n-1}$$

$\frac{406,538 - \frac{(4652)^2}{56}}{55} = 399,511.66$

Desviacion estandar $\sqrt{399,511.66}$

$= 632.06$

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45 - 45 - 45 - 46 - 48 - 48 - 49 - 49 - 50
53 - 55 - 55 - 56 - 56 - 56 - 56 - 58 - 59
60 - 60 - 65 - 66 - 67 - 67 - 69 - 69 - 70
70 - 70 - 70 - 71 - 71 - 71 - 72 - 74 - 74
76 - 76 - 77 - 77 - 80 - 80 - 80 - 80 - 80
80 - 80 - 80

Rango $\frac{(80-45)+1}{6} = \frac{36}{6} = 6 = (5)$

	Intervalo	fi	%fi	fia	%fia	$\bar{x}_i$	$f_i \bar{x}_i$	x_i^2
①	45-50	9	18.75	9	18.75%	47.5	427.5	2,856.25
②	51-56	7	14.58	16	33.33%	53.5	395.5	2,862.25
③	57-62	4	8.3	20	41.66%	59.5	238	3,540.25
④	63-68	4	8.3	24	50%	65.5	262	4,290.25
⑤	69-74	12	25	36	75%	71.5	858	5,112.25
⑥	75-80	12	25	48	100%	77.5	930	6,006.25
		48					3,111	

$f_i \bar{x}_i^2$

① 20,306.25
② 20,035.75
③ 14,161 = 205,086
④ 17,161
⑤ 61,347
⑥ 72,075

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$$X = \frac{\Sigma f_i x_i}{n} = \frac{3,111}{48} = 64.81$$

$$Me = L_i + \frac{\frac{n}{2} - F_{ia-1}}{f_i} \cdot a_i \quad \frac{n}{2}$$

$$\frac{48}{2} = 24 \qquad 63 + \frac{24 - 20}{4} \cdot x.5 = 68$$

$$Mo = L_i + \frac{f_i - f_{i-1}}{(f_i - f_{i-1}) + (f_i - f_{i+1})} \cdot a_i$$

$$\frac{75 + 12 - 12}{(6-12) + (6-0)} \cdot 5 = 105$$

$$S^2 = \frac{\Sigma f_i x_i^2 - \frac{(f_i x_i)^2}{n}}{n-1}$$

$$\frac{205,086 - \frac{(3,111)^2}{48}}{47} = 246.73$$

$$\sqrt{246.73} = 15.70$$