



INSTITUTO PRIVADO
RAFAEL AREVALO MARTINEZ

CURSO
ESTADISTICA

CATEDRATICO
JOSUE ESTRADA

NOMBRE
ZABDY ANDREA APEN GARCIA

GRADO
4TO ADMON

TAREA #8 DE ESTADISTICA

Act. 8

Instrucciones: Agregue las columnas que hacen falta y calcule lo siguiente.

45	45	50	50	50	55	60	60	60	60
60	60	60	61	61	61	63	63	65	66
67	67	68	69	69	72	72	73	73	74
74	75	75	75	76	78	79	80	80	83
99									

$$h = 1 + 3.322 \log(n)$$

$$h = 1 + 3.322 \log(41)$$

$$h = 1 + 3.322 (1.61278)$$

$$h = 1 + 5.36$$

$$h = 6.36$$

$$R = D_{ma} - D_{mc} + 1$$

$$R = 99 - 45 + 1$$

$$R = 54 + 1$$

$$R = 55$$

$$i = \frac{R}{h}$$

$$i = \frac{55}{6.36}$$

$$i = 8.65$$

$$i = 9$$

Puntajes Obtenidos en un Examen 44

f	$f \cdot x$	$f \cdot x^2$	Σf	$\Sigma f \cdot x$	$\Sigma f \cdot x^2$
1	1	1	1	1	1
1	2	4	1	2	4
1	3	9	1	3	9
1	4	16	1	4	16
1	5	25	1	5	25
1	6	36	1	6	36
1	7	49	1	7	49
1	8	64	1	8	64
1	9	81	1	9	81
1	10	100	1	10	100
1	11	121	1	11	121
1	12	144	1	12	144
1	13	169	1	13	169
1	14	196	1	14	196
1	15	225	1	15	225
1	16	256	1	16	256
1	17	289	1	17	289
1	18	324	1	18	324
1	19	361	1	19	361
1	20	400	1	20	400
1	21	441	1	21	441
1	22	484	1	22	484
1	23	529	1	23	529
1	24	576	1	24	576
1	25	625	1	25	625
1	26	676	1	26	676
1	27	729	1	27	729
1	28	784	1	28	784
1	29	841	1	29	841
1	30	900	1	30	900
1	31	961	1	31	961
1	32	1024	1	32	1024
1	33	1089	1	33	1089
1	34	1156	1	34	1156
1	35	1225	1	35	1225
1	36	1296	1	36	1296
1	37	1369	1	37	1369
1	38	1444	1	38	1444
1	39	1521	1	39	1521
1	40	1600	1	40	1600
1	41	1681	1	41	1681
1	42	1764	1	42	1764
1	43	1849	1	43	1849
1	44	1936	1	44	1936
1	45	2025	1	45	2025
1	46	2116	1	46	2116
1	47	2209	1	47	2209
1	48	2304	1	48	2304
1	49	2401	1	49	2401
1	50	2500	1	50	2500
1	51	2601	1	51	2601
1	52	2704	1	52	2704
1	53	2809	1	53	2809
1	54	2916	1	54	2916
1	55	3025	1	55	3025
1	56	3136	1	56	3136
1	57	3249	1	57	3249
1	58	3364	1	58	3364
1	59	3481	1	59	3481
1	60	3600	1	60	3600
1	61	3721	1	61	3721
1	62	3844	1	62	3844
1	63	3969	1	63	3969
1	64	4096	1	64	4096
1	65	4225	1	65	4225
1	66	4356	1	66	4356
1	67	4489	1	67	4489
1	68	4624	1	68	4624
1	69	4761	1	69	4761
1	70	4900	1	70	4900
1	71	5041	1	71	5041
1	72	5184	1	72	5184
1	73	5329	1	73	5329
1	74	5476	1	74	5476
1	75	5625	1	75	5625
1	76	5776	1	76	5776
1	77	5929	1	77	5929
1	78	6084	1	78	6084
1	79	6241	1	79	6241
1	80	6400	1	80	6400
1	81	6561	1	81	6561
1	82	6724	1	82	6724
1	83	6889	1	83	6889
1	84	7056	1	84	7056
1	85	7225	1	85	7225
1	86	7396	1	86	7396
1	87	7569	1	87	7569
1	88	7744	1	88	7744
1	89	7921	1	89	7921
1	90	8100	1	90	8100
1	91	8281	1	91	8281
1	92	8464	1	92	8464
1	93	8649	1	93	8649
1	94	8836	1	94	8836
1	95	9025	1	95	9025
1	96	9216	1	96	9216
1	97	9409	1	97	9409
1	98	9604	1	98	9604
1	99	9801	1	99	9801
1	100	10000	1	100	10000

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de Estudios Sociales Por Alumnos

$f(x)$	$(x - \bar{x})$	$f(x - \bar{x})^2$	Σf	$\Sigma f(x - \bar{x})$	$\Sigma f(x - \bar{x})^2$
1	-1	1	1	-1	1
1	0	0	1	0	0
1	1	1	1	1	1
1	2	4	1	2	4
1	3	9	1	3	9
1	4	16	1	4	16
1	5	25	1	5	25
1	6	36	1	6	36
1	7	49	1	7	49
1	8	64	1	8	64
1	9	81	1	9	81
1	10	100	1	10	100
1	11	121	1	11	121
1	12	144	1	12	144
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1	14	196	1	14	196
1	15	225	1	15	225
1	16	256	1	16	256
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1	19	361	1	19	361
1	20	400	1	20	400
1	21	441	1	21	441
1	22	484	1	22	484
1	23	529	1	23	529
1	24	576	1	24	576
1	25	625	1	25	625
1	26	676	1	26	676
1	27	729	1	27	729
1	28	784	1	28	784
1	29	841	1	29	841
1	30	900	1	30	900
1	31	961	1	31	961
1	32	1024	1	32	1024
1	33	1089	1	33	1089
1	34	1156	1	34	1156
1	35	1225	1	35	1225
1	36	1296	1	36	1296
1	37	1369	1	37	1369
1	38	1444	1	38	1444
1	39	1521	1	39	1521
1	40	1600	1	40	1600
1	41	1681	1	41	1681
1	42	1764	1	42	1764
1	43	1849	1	43	1849
1	44	1936	1	44	1936
1	45	2025	1	45	2025
1	46	2116	1	46	2116
1	47	2209	1	47	2209
1	48	2304	1	48	2304
1	49	2401	1	49	2401
1	50	2500	1	50	2500
1	51	2601	1	51	2601
1	52	2704	1	52	2704
1	53	2809	1	53	2809
1	54	2916	1	54	2916
1	55	3025	1	55	3025
1	56	3136	1	56	3136
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1	58	3364	1	58	3364
1	59	3481	1	59	3481
1	60	3600	1	60	3600
1	61	3721	1	61	3721
1	62	3844	1	62	3844
1	63	3969	1	63	3969
1	64	4096	1	64	4096
1	65	4225	1	65	4225
1	66	4356	1	66	4356
1	67	4489	1	67	4489
1	68	4624	1	68	4624
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1	70	4900	1	70	4900
1	71	5041	1	71	5041
1	72	5184	1	72	5184
1	73	5329	1	73	5329
1	74	5476	1	74	5476
1	75	5625	1	75	5625
1	76	5776	1	76	5776
1	77	5929	1	77	5929
1	78	6084	1	78	6084
1	79	6241	1	79	6241
1	80	6400	1	80	6400
1	81	6561	1	81	6561
1	82	6724	1	82	6724
1	83	6889	1	83	6889
1	84	7056	1	84	7056
1	85	7225	1	85	7225
1	86	7396	1	86	7396
1	87	7569	1	87	7569
1	88	7744	1	88	7744
1	89	7921	1	89	7921
1	90	8100	1	90	8100
1	91	8281	1	91	8281
1	92	8464	1	92	8464
1	93	8649	1	93	8649
1	94	8836	1	94	8836
1	95	9025	1	95	9025
1	96	9216	1	96	9216
1	97	9409	1	97	9409
1	98	9604	1	98	9604
1	99	9801	1	99	9801
1	100	10000	1	100	10000

Tarea # 8

$$\bar{X} = \frac{\sum fx}{N}$$

$$\bar{X} = \frac{2729}{41}$$

$$\bar{X} = 66.56$$

$$Md = L_n + \left(\frac{\frac{N}{2} - f_{og}}{f} \right) i$$

$$\frac{41}{2} = 20.5$$

$$Md = 62.5 + \left(\frac{20.5 - 16}{9} \right) i$$

$$Md = 62.5 + \left(\frac{4.5}{9} \right) i$$

$$Md = 62.5 + (0.5) i$$

$$Md = 62.5 + 4.5$$

$$Md = 67$$

$$M_o = L_n + \left(\frac{\Delta_1}{\Delta_1 + \Delta_2} \right) i$$

$$\frac{14 - 9}{14 - 1} = \frac{5}{13}$$

$$M_o = 71.5 + \left(\frac{5}{5 + 13} \right) i$$

$$M_o = 71.5 + \left(\frac{5}{18} \right) i$$

$$M_o = 71.5 + (0.28) i$$

$$M_o = 74.02$$

$$M_o = 71.5 + 2.52$$

$$Q_1 = L_{r1} + \left(\frac{N/4 - f_{r1}}{f} \right) i$$

$$\frac{41}{4} = 10.25$$

$$Q_1 = 53.5 + \left(\frac{10.25 - 5}{11} \right) 9$$

$$Q_1 = 53.5 + \left(\frac{5.25}{11} \right) 9$$

$$Q_1 = 57.82$$

$$Q_1 = 53.5 + (0.48) 9$$

$$Q_1 = 53.5 + 4.32$$

$$Q_3 = L_{r3} + \left(\frac{3N/4 - f_{r3}}{f} \right) i$$

$$\frac{3 \times 41}{4} = 30.75$$

$$Q_3 = 71.5 + \left(\frac{30.75 - 25}{14} \right) 9$$

$$Q_3 = 71.5 + \left(\frac{5.75}{14} \right) 9$$

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$$Q_3 = 71.5 + (0.41) 9$$

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$$Q_3 = 71.5 + 3.69$$

Tamba #8

$$Q_3 = 75.19$$

$$D_3 = L_n + \left(\frac{N_3/10 - f_{00}}{f} \right) q$$

$$\frac{3 \times 41}{10} = 12.3$$

$$D_3 = 53.5 + \left(\frac{12.3 - 5}{11} \right) q$$

$$D_3 = 53.5 + \left(\frac{7.3}{11} \right) q$$

$$D_3 = 59.44$$

$$D_3 = 53.5 + (0.66) q$$

$$D_3 = 53.5 + 5.94$$

$$D_7 = L_n + \left(\frac{N_7/10 - f_{00}}{f} \right) q$$

$$\frac{7 \times 41}{10} = 28.7$$

$$D_7 = 71.5 + \left(\frac{28.7 - 25}{14} \right) q$$

$$D_7 = 71.5 + \left(\frac{3.7}{14} \right) q$$

$$D_7 = 73.84$$

$$D_7 = 71.5 + (0.26) q$$

$$D_7 = 71.5 + 2.34$$

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Tanpa #8

$$P_{75} = L_n + \left(\frac{N_{75}/100 - f_{aa}}{f} \right) i$$

$$\frac{41 \times 75}{100} = 30.75$$

$$P_{75} = 71.5 + \left(\frac{30.75 - 25}{14} \right) q$$

$$P_{75} = 71.5 + \left(\frac{5.75}{14} \right) q$$

$$P_{75} = 75.19$$

$$P_{75} = 71.5 + (0.41)q$$

$$P_{75} = 71.5 + 3.69$$

$$P_{90} = L_n + \left(\frac{N_{90}/100 - f_{aa}}{f} \right) i$$

$$\frac{41 \times 90}{100} = 36.9$$

$$P_{90} = 71.5 + \left(\frac{36.9 - 25}{14} \right) q$$

$$P_{90} = 71.5 + \left(\frac{11.9}{14} \right) q$$

$$P = 79.15$$

$$P_{90} = 71.5 + (0.85)q$$

$$P_{90} = 71.5 + 7.65$$

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Tarea #8

$$\bar{X} = \frac{2729}{41} = 66.56$$

$$S = \sqrt{\frac{4,689.95}{41}}$$

$$V = \frac{S}{\bar{X}} \times 100$$

$$DM = \frac{\sum f(d)}{N}$$

$$S = \sqrt{114.39}$$

$$V = \frac{10.70}{66.56} \times 100$$

$$D.M = \frac{363.96}{41} = 8.88$$

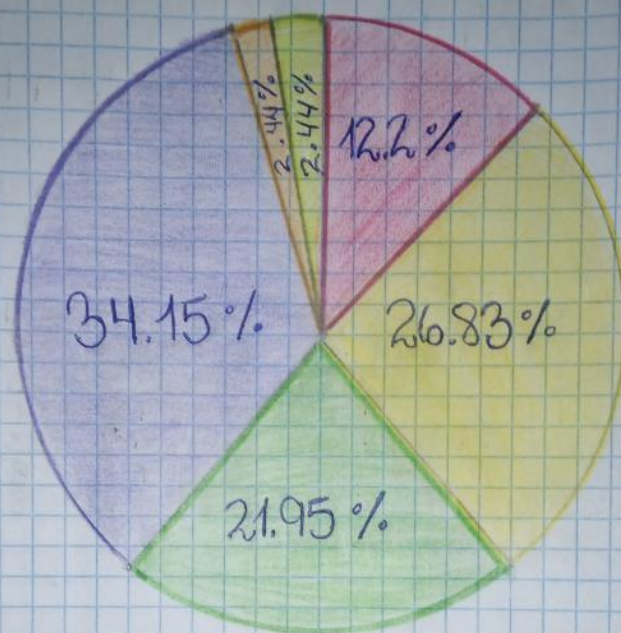
$$S = 10.70$$

$$V = 16.08 \%$$

La Media es bastante Representativa

Zuley Apón 4to Admón Torra #8

Diagrama de Sectores de Puntos
obtenidos en un examen de Estudios
Sociales por 41 alumnos.



Zabdy Apón

4to. Admon

Tarea #8

- 49
- 58
- 67
- 76
- 85
- 94