

**INSTITUTO PRIVADO
RAFAEL AREVALO MARTINEZ**



**CURSO:
ESTADÍSTICA**

**CATEDRATICO:
JOSUE ESTRADA**

**NOMBRE:
ZABDY ANDREA APÉN GARCÍA**

**GRADO:
4TO. ADMON.**

**TAREA:
ACT. 8**

Actividad 8.

Instrucciones: Realice lo que se le pide

1. Ordene los datos

49 55 65 66 66 70 72 72 72 74
75 75 76 76 77 78 79 80 81 81
81 81 83 84 90

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

$$h = 1 + 3.322 \log(25)$$

$$h = 1 + 3.322 (1.39794)$$

$$h = 1 + 4.64$$

$$h = 5.64$$

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

$$R = 90 - 49 + 1$$

$$R = 41 + 1$$

$$R = 42$$

$$i = \frac{R}{h} \quad i = \frac{42}{5.64} \quad i = 7.44$$

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$$i = 7$$

k	LA	L ₁	L ₂	XS	f	f ₀	fXS
1	49 - 55	48.5	55.5	52	2	2	104
2	56 - 62	55.5	62.5	59	0	2	0
3	63 - 69	62.5	69.5	66	3	5	198
4	70 - 76	69.5	76.5	73	9	14	657
5	77 - 83	76.5	83.5	80	9	23	720
6	84 - 90	83.5	90.5	87	2	25	174
							1853

$$\bar{X} = \frac{\sum fXS}{N} \quad \bar{X} = \frac{1853}{25} = 74.12$$

$$Md = L_n + \left(\frac{\frac{N}{2} - f_{00}}{f} \right) i \quad \frac{25}{2} = 12.5$$

$$Md = 69.5 + \left(\frac{12.5 - 5}{9} \right) 7$$

$$Md = 69.5 + \left(\frac{7.5}{9} \right) 7$$

$$Md = 75.31$$

$$Md = 69.5 + (0.83) 7$$

$$Md = 69.5 + 5.81$$

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

$$\frac{9 - 3}{9 - 0} = \frac{6}{9}$$

$$Mo = 69.5 + \left(\frac{6}{6+0} \right) 7$$

$$Mo = 69.5 + \left(\frac{6}{6} \right) 7$$

$$Mo = 69.5 + (1) 7$$

$$Mo = 69.5 + 7$$

$$Mo = 76.5$$

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$$Q_1 = L_n + \left(\frac{N/4 - f_{aa}}{f} \right) \cdot$$

$$\frac{25}{4} = 6.25$$

$$Q_1 = 69.5 + \left(\frac{6.25 - 5}{9} \right) \cdot 7$$

$$Q_1 = 69.5 + \left(\frac{1.25}{9} \right) \cdot 7$$

$$Q_1 = 69.5 + (0.14) \cdot 7$$

$$Q_1 = 69.5 + 0.98$$

$$Q_1 = 70.48$$

$$Q_2 = L_n + \left(\frac{N/4 - f_{aa}}{f} \right) \cdot$$

$$\frac{2 \times 25}{4} = 12.5$$

$$Q_2 = 69.5 + \left(\frac{12.5 - 5}{9} \right) \cdot 7$$

$$Q_2 = 69.5 + \left(\frac{7.5}{9} \right) \cdot 7$$

$$Q_2 = 69.5 + (0.83) \cdot 7$$

$$Q_2 = 69.5 + 5.81$$

$$Q_2 = 75.31$$

$$Q_3 = L_n + \left(\frac{3N/4 - f_{aa}}{f} \right) \cdot$$

$$\frac{3 \times 25}{4} = 18.75$$

$$Q_3 = 76.5 + \left(\frac{18.75 - 14}{9} \right) \cdot 7$$

$$Q_3 = 76.5 + \left(\frac{4.75}{9} \right) \cdot 7$$

$$Q_3 = 76.5 + (0.53) \cdot 7$$

$$Q_3 = 76.5 + 3.71$$

$$Q_3 = 80.21$$

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$$D_2 = Lr + \left(\frac{N_2}{f} - f_0 \right) e$$

$$\frac{25 \times 2}{10} = 5$$

$$D_2 = 62.5 + \left(\frac{5-2}{3} \right) 7$$

$$D_2 = 62.5 + \left(\frac{3}{3} \right) 7$$

$$D_2 = 62.5 + (1) 7$$

$$D_2 = 62.5 + 7$$

$$D_2 = 69.5$$

$$D_6 = Lr + \left(\frac{N_6}{f} - f_0 \right) e$$

$$\frac{25 \times 6}{10} = 15$$

$$D_6 = 76.5 + \left(\frac{15-14}{9} \right) 7$$

$$D_6 = 76.5 + \left(\frac{1}{9} \right) 7$$

$$D_6 = 76.5 + (0.11) 7$$

$$D_6 = 76.5 + 0.77$$

$$D_6 = 77.27$$

$$D_9 = Lr + \left(\frac{N_9}{f} - f_0 \right) e$$

$$\frac{25 \times 9}{10} = 22.5$$

$$D_9 = 76.5 + \left(\frac{22.5-14}{9} \right) 7$$

$$D_9 = 76.5 + \left(\frac{8.5}{9} \right) 7$$

$$D_9 = 76.5 + (0.94) 7$$

$$D_9 = 76.5 + 6.58$$

$$D_9 = 83.08$$

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Tarea #8

$$P_{15} = L_n + \left(\frac{N_n}{100} - f_{og} \right) i$$

$$\frac{25 \times 15}{100} = 3.75$$

$$P_{15} = 62.5 + \left(\frac{3.75 - 2}{3} \right) 7$$

$$P_{15} = 66.56$$

$$P_{15} = 62.5 + \left(\frac{1.75}{3} \right) 7$$

$$P_{15} = 62.5 + (0.58) 7$$

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$$P_{15} = 62.5 + 4.06$$

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$$P_{70} = L_n + \left(\frac{N_n}{100} - f_{og} \right) i$$

$$\frac{25 \times 70}{100} = 17.5$$

$$P_{70} = 76.5 + \left(\frac{17.5 - 14}{9} \right) 7$$

$$P_{70} = 79.23$$

$$P_{70} = 76.5 + \left(\frac{3.5}{9} \right) 7$$

$$P_{70} = 76.5 + (0.39) 7$$

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$$P_{70} = 76.5 + 2.73$$

$$P_{95} = L_n + \left(\frac{N_n}{100} - f_{og} \right) i$$

$$\frac{25 \times 95}{100} = 23.75$$

$$P_{95} = 83.5 + \left(\frac{23.75 - 23}{2} \right) 7$$

$$P_{95} = 83.5 + 2.66$$

$$P_{95} = 83.5 + \left(\frac{0.75}{2} \right) 7$$

$$P_{95} = 86.16$$

$$P_{95} = 83.5 + (0.38) 7$$

Polígono de Frecuencias de Puntajes de 25 Alumnos en un examen de Contabilidad de Sociedades



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Tarea 8.