



**ESCUELA: UNIVERSIDAD DEL
SURESTE**

**ALUMNO: GRISLY MARBEY LÓPEZ
FIGUEROA**

**CARRERA: ADMINISTRACIÓN DE
EMPRESAS**

MATERIA: ESTADÍSTICA FINANCIERA.

CUATRIMESTRE: 3RO GRUPO: A

**NOMBRE DEL CATEDRÁTICO: ALBORES
AGUILAR JORGE ENRIQUE.**

LUGAR: COMITÁN DE DOMÍNGUEZ

FECHA ENTREGA: 13/JUNIO/2020

ESTADÍSTICA DESCRIPTIVA

Grisly MARBEY LÓPEZ FIGUEROA.

INTERVALO	f	F
10 - 15	8	8
15 - 20	12	20
20 - 25	3	23
25 - 30	6	29
30 - 35	4	33
35 - 40	10	43
40 - 45	9	52
45 - 50	8	60
50 - 55	7	67
	67	

- Cuartiles: 1, 2, 3
- Deciles: 2, 4, 6, 8, 9
- Percentiles: 9, 55, 69, 72.

PRIMER CUARTIL

$$Q_k = L_i + A \left(\frac{\frac{kn}{4} - F_{i-1}}{F_i - F_{i-1}} \right)$$

$$\text{Posición } \frac{kn}{4} = \frac{1 \cdot 67}{4} = 16.75$$

$$F_{i-1} = 8$$

$$L_i = 15$$

$$F_i = 20$$

$$A = L_s - L_i = 5$$

$$Q_1 = 15 + 5 \left(\frac{16.75 - 8}{20 - 8} \right)$$

$$Q_1 = 15 + 5 \left(\frac{8.75}{12} \right)$$

$$Q_1 = 15 + 3.64$$

$$Q_1 = 18.64$$

$$\text{Posición } \frac{Kn}{4} = \frac{2 \times 67}{4} = 33.5$$

SEGUNDO CUARTIL

$$F_{i-1} = 33$$

$$L_i = 35$$

$$F_i = 43$$

$$A = L_i - L_{i-1} = 5$$

$$Q_2 = 35 + 5 \left(\frac{33.5 - 33}{43 - 33} \right)$$

$$Q_2 = 35 + 5 \left(\frac{0.5}{10} \right)$$

$$Q_2 = 35 + 0.25$$

$$Q_2 = \underline{35.25}$$

TERCER CUARTIL

$$\text{Posición } \frac{Kn}{4} = \frac{3 \times 67}{4} = 50.25$$

$$F_{i-1} = 43$$

$$L_i = 40$$

$$F_i = 52$$

$$A = L_i - L_{i-1} = 5$$

$$Q_3 = 40 + 5 \left(\frac{50.25 - 43}{52 - 43} \right)$$

$$Q_3 = 40 + 5 \left(\frac{7.25}{9} \right)$$

$$Q_3 = 40 + 4.02$$

$$Q_3 = \underline{44.02}$$

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PRIMER DECIL

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$$D_k = L_i + A \left(\frac{\frac{Kn}{10} - F_{i-1}}{F_i - F_{i-1}} \right)$$

$$\text{Posición} = \frac{Kn}{10} = \frac{2 \times 67}{10} = 13.4$$

$$F_{i-1} = 8$$

$$L_i = 15$$

$$F_i = 20$$

$$A = L_s - L_i = 5$$

$$D_2 = 15 + 5 \left(\frac{13.4 - 8}{20 - 8} \right)$$

$$D_2 = 15 + 5 \left(\frac{5.4}{12} \right)$$

$$D_2 = 15 + 2.25$$

$$D_2 = \underline{\underline{17.25}}$$

CUARTO DECIL

$$\text{Posición} = \frac{Kn}{10} = \frac{4 \times 67}{10} = 26.8$$

$$F_{i-1} = 23$$

$$L_i = 25$$

$$F_i = 29$$

$$A = L_s - L_i = 5$$

$$D_4 = 25 + 5 \left(\frac{26.8 - 23}{29 - 23} \right)$$

$$D_4 = 25 + 5 \left(\frac{3.8}{6} \right)$$

$$D_4 = 25 + 3.16$$

$$D_4 = \underline{\underline{28.16}}$$

SEXTO DECIL

$$\text{Posición} = \frac{Kn}{10} = \frac{6 \times 67}{10} = 40.2$$

$$F_{i-1} = 33$$

$$L_i = 35$$

$$F_i = 43$$

$$A = L_s - L_i = 5$$

$$D_6 = 35 + 5 \left(\frac{40.2 - 33}{43 - 33} \right)$$

$$D_6 = 35 + 5 \left(\frac{7.2}{10} \right)$$

$$D_6 = 35 + 3.6$$

$$D_6 = \underline{\underline{38.6}}$$

OCTAVO DECIL

$$\text{Posición } \frac{Kn}{10} = \frac{8 \times 67}{10} = 53.6$$

$$F_{i-1} = 52$$

$$L_i = 45$$

$$F_i = 60$$

$$A = L_s - L_i = 5$$

$$D_8 = 45 + 5 \left(\frac{53.6 - 52}{60 - 52} \right)$$

$$D_8 = 45 + 5 \left(\frac{1.6}{8} \right)$$

$$D_8 = 45 + 1$$

$$D_8 = \underline{\underline{46}}$$

NOVENO DECIL

$$\text{Posición} = \frac{Kn}{10} = \frac{9 \times 67}{10} = 60.3$$

$$F_{i-1} = 60$$

$$L_i = 50$$

$$F_i = 67$$

$$A = L_s - L_i = 5$$

$$D_9 = 50 + 5 \left(\frac{60.3 - 60}{67 - 60} \right)$$

$$D_9 = 50 + 5 \left(\frac{0.3}{7} \right)$$

$$D_9 = 50 + 0.21$$

$$D_9 = \underline{\underline{50.21}}$$

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PERCENTIL # 9

$$\text{Posición} = \frac{Kn}{100} = \frac{9 \times 67}{100} = 6.03$$

FORMULA

$$\frac{\frac{Kn}{100} - Fi-1}{Fi - Fi-1}$$

PK = Li + A

$$Fi-1 = 0$$

$$Li = 10$$

$$Fi = 8$$

$$A = Ls - Li = 5$$

$$P_9 = 10 + 5 \left(\frac{6.03 - 0}{8 - 0} \right)$$

$$P_9 = 10 + 5 \left(\frac{6.03}{8} \right)$$

$$P_9 = 10 + 3.76$$

$$P_9 = \underline{\underline{13.76}}$$

PERCENTIL # 55

$$\text{Posición} = \frac{Kn}{100} = \frac{55 \times 67}{100} = 36.85$$

$$Fi-1 = 33$$

$$Li = 35$$

$$Fi = 43$$

$$A = Ls - Li = 5$$

$$P_{55} = 35 + 5 \left(\frac{36.85 - 33}{43 - 33} \right)$$

$$P_{55} = 35 + 5 \left(\frac{3.85}{10} \right)$$

$$P_{55} = 35 + 1.925$$

$$P_{55} = \underline{\underline{36.925}}$$

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PERCENTIL # 69

$$\text{Posición} = \frac{Kn}{100} = \frac{69 \times 67}{100} = 46.23$$

$$F_{i-1} = 43$$

$$L_i = 40$$

$$F_i = 52$$

$$A = L_i - L_{i-1} = 5$$

$$P_{69} = 40 + 5 = \left(\frac{46.23 - 43}{52 - 43} \right)$$

$$P_{69} = 40 + 5 \left(\frac{3.23}{9} \right)$$

$$P_{69} = 40 + 2.91$$

$$P_{69} = \underline{\underline{42.91}}$$

PERCENTIL # 72

$$\text{Posición} \frac{Kn}{100} = \frac{72 \times 67}{100} = 48.24$$

$$F_{i-1} = 43$$

$$L_i = 40$$

$$F_i = 52$$

$$A = L_i - L_{i-1} = 5$$

$$P_{72} = 40 + 5 = \left(\frac{48.24 - 43}{52 - 43} \right)$$

$$P_{72} = 40 + 5 = \left(\frac{5.24}{9} \right)$$

$$P_{72} = 40 + 2.91$$

$$P_{72} = \underline{\underline{42.91}}$$

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