

UDS

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Materia: Estadísticas descriptivas

Cuatrimestre: 3er cuatrimestre

Trabajo: Ejercicios

Datos	f	F
10-20	8	8
20-30	4	12
30-40	12	24
40-50	8	32
50-60	7	39
60-70	3	42
70-80	6	48

$$n = 48$$

$$Q_1 = \frac{1 \cdot 48}{4} = 12 \text{ posición}$$

$$Q_1 = 28 = 30$$

$$Q_1 = 30$$

$$Q_2 = \frac{2 \cdot 48}{4} = 24$$

$$Q_2 = 28 = 40$$

$$Q_2 = 40$$

$$Q_3 = \frac{3 \cdot 48}{4} = 36$$

$$Q_3 = 50 + 10 \left(\frac{36 - 32}{59 - 32} \right)$$

$$Q_3 = 50 + 10 \left(\frac{4}{7} \right)$$

$$Q_3 = 55.71$$

$$D_2 = \frac{2 \cdot 48}{10} = 9.6$$

$$D_4 = \frac{4 \cdot 48}{10} = 19.2$$

$$D_6 = \frac{6 \cdot 48}{10} = 28.8$$

$$D_2 = 20 + 10 \left(\frac{9.6 - 8}{12 - 8} \right)$$

$$D_4 = 30 + 10 \left(\frac{19.2 - 12}{24 - 12} \right)$$

$$D_6 = 40 + 10 \left(\frac{28.8 - 24}{32 - 24} \right)$$

$$D_2 = 20 + 10 \left(\frac{1.6}{4} \right)$$

$$D_4 = 30 + 10 \left(\frac{7.2}{12} \right)$$

$$D_6 = 40 + 10 \left(\frac{4.8}{8} \right)$$

$$D_2 = 24$$

$$D_4 = 36$$

$$D_6 = 46$$

$$D_8 = \frac{8 \cdot 48}{10} = 38.4$$

$$D_8 = 50 + 10 \left(\frac{38.4 - 32}{39 - 32} \right)$$

$$D_8 = 50 + 10 \left(\frac{6.4}{7} \right)$$

$$D_8 = 59.14$$

$$D_9 = \frac{9 \cdot 48}{10} = 43.2$$

$$D_9 = 70 + 10 \left(\frac{43.2 - 42}{48 - 42} \right)$$

$$D_9 = 70 + 10 \left(\frac{1.2}{6} \right)$$

$$D_9 = 72$$

$$P_9 = \frac{9 \cdot 48}{100} = 4.32$$

$$P_9 = 10 + 10 \left(\frac{4.32}{48} \right)$$

$$P_9 = 10.9$$

$$P_{55} = \frac{55 \cdot 48}{100} = 26.4$$

$$P_{55} = 40 + 10 \left(\frac{26.4 - 24}{32 - 24} \right)$$

$$P_{55} = 40 + 10 \left(\frac{2.4}{8} \right)$$

$$P_{55} = 43$$

$$P_{69} = \frac{69 \cdot 48}{100} = 33.12$$

$$P_{69} = 50 + 10 \left(\frac{33.12 - 32}{39 - 32} \right)$$

$$P_{69} = 50 + 10 \left(\frac{1.12}{7} \right)$$

$$P_{69} = 51.6$$

$$P_{72} = \frac{72 \cdot 48}{100} = 34.56$$

$$P_{72} = 50 + 10 \left(\frac{34.56 - 32}{39 - 32} \right)$$

$$P_{72} = 50 + 10 \left(\frac{2.56}{7} \right)$$

$$P_{72} = 53.65$$

$Q_k = L_i + A \left(\frac{K_n}{4} - F_{i-1} \right)$
 $F_i - F_{i-1}$
 Posición $\frac{K_n}{4}$ numero de datos
 $Q_3 \rightarrow \frac{3 \cdot 60}{4} = 45$ posición
 $Q_3 = L_5 = 50$
 $P_{55} \quad P_k = L_i + A \left(\frac{K_n}{100} - F_{i-1} \right)$
 $F_i - F_{i-1}$

$F_{i-1} = 10 \quad L_i = 40$
 $F_i = 22$
 $A = L_i - F_{i-1} = 5$
 $D_2 = \text{Formula}$

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

Posición $\frac{K_n}{4} \quad n=48$
 $Q_1 \rightarrow \frac{1 \cdot 48}{4} = 12$ posición
 $Q_1 = L_3 = 30$
 $2 \cdot 48$ Posición 24
 $4 \sqrt{48}$
 16
 $2 \cdot 24$

~~$F_{i-1} = 12 \quad L_i = 30$
 $F_i = 24 \quad A = 10$

 $F_{i-1} = 24 \quad L_i = 40$
 $F_i = 32 \quad A = 10$

 $F_{i-1} = 32 \quad L_i = 50$
 $F_i = 39 \quad A = 10$~~

~~$F_{i-1} = 32 \quad L_i = 50$
 $F_i = 39 \quad A = 10$

 $F_{i-1} = 8 \quad L_i = 20$
 $F_i = 12 \quad A = 10$~~

~~$F_{i-1} = 42 \quad L_i = 70$
 $F_i = 48 \quad A = 10$~~

$F_{i-1} = 6 \quad L_i = 10$
 $F_i = 8 \quad A = 16$
 $F_{i-1} = 32 \quad L_i = 50$
 $F_i = 39 \quad A = 10$

$F_{i-1} = 24 \quad L_i = 40$
 $F_i = 30 \quad A = 10$
 $F_{i-1} = 32 \quad L_i = 50$
 $F_i = 39 \quad A = 10$

$D_2 = 20 + 10 \left(\frac{9.6 - 8}{12 - 8} \right)$