

# UNIVERSIDAD DEL SURESTE

ESTADISTICA DESCRIPTIVA

(EJERCICIOS.)

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Percentil 70

$$Q_3 = Li = \left( \frac{Q_3 - (fec-1)}{f_i} \right) \cdot a_i$$

$$Q_3 = 50 + \left( \frac{36-32}{7} \right) \cdot 10$$

$$Q_3 = 50 + 4/7 \cdot 10$$

$$Q_3 = 50 + (0.5714) \cdot 10$$

$$Q_3 = 55.71$$
  

$$Li + \left( \frac{\frac{xn}{100} - (fac-1)}{f_i} \right) \cdot a_i$$

$$Q_3 = N \cdot 75/100$$

$$Q_3 = 48 \times 75/100$$

$$Q_3 = 3600/100$$

$$Q_3 = 36$$
  

$$50 + \frac{33.6 - 32 \times 10}{7}$$

$$= 52.28$$

Datos	Fi	Fice	mc	f. mc	fr	fir
10-20	8	8	15	120	0.166	16.66
20-30	4	12	25	100	0.083	8.33
30-40	12	24	35	420	0.25	25
40-50	8	32	45	360	0.166	16.666
50-60	7	39	55	385	0.145	14.523
60-70	3	42	65	195	0.0625	6.25
70-80	6	48	75	450	0.125	12.5
	N=48			Fi/N	Fi/N	Fi/N \cdot 100

  

Histograma

  

Promedio

$$\bar{x} = \frac{\sum mc \cdot fa}{N} = \frac{120 + 100 + 420 + 360 + 385 + 195 + 450}{48} = \frac{2030}{48}$$

$$\bar{x} = \frac{\sum mc \cdot fa}{N} = 42.29$$
  

Mediana

$$Li + \left( \frac{\frac{N}{2} - (fac-1)}{f_a} \right) \cdot a_i$$

$$M = 30 + \frac{24 - 12}{12} \cdot 10 =$$

$$M = 40$$
  

Moda

$$Li + \left( \frac{f_i + 1}{(f_i - 1) + (f_i + 1)} \right) \cdot a_i$$

$$Mo = 30 + \left( \frac{8}{4+8} \right) \cdot 10 =$$

$$Mo = 30 + 0.666 \times 10 = 36.666$$