

Clase	x_i	f_i	fr	F_i	%
15-19 L_i L_5	17	10	0.25	10	25%
19-23	21	4	0.1	14	10%
23-27	25	6	0.15	20	15%
27-31	29	7	0.175	27	17.5%
31-35	33	5	0.125	32	12.5%
35-39	37	6	0.15	38	15%
39-43	41	2	0.05	40	5%
			1		100%

Media:

$$\bar{x} = \frac{\sum x_i \cdot f_i}{n}$$

$$\bar{x} = \frac{1,076}{40}$$

$$\bar{x} = 26.9$$

$x_i \cdot f_i$
170
84
150
203
165
222
82
<u>1,076</u>

Mediana:

$$Mc = L_i + \frac{\frac{N}{2} - F_{i-1}}{f_i} \cdot a$$

$$N = \frac{40}{2}$$

$$N = 20$$

$$Mc = 23 + \frac{20 - 14}{6} \cdot 4$$

$$Mc = 23 + \frac{6}{6} \cdot 4$$

$$Mc = 23 + \frac{24}{6}$$

$$Mc = 23 + 4$$

$$Mc = 27$$

10/03/2023

Medidas de Tendencia Central

UNIDAD #3

Realiza una tabla de Frecuencia:

En un cine se desea saber que clientes visitan más sus salas y así poder lanzar promociones. Por ello se recabaron los datos de las edades de los asistentes:

✓ □ ✓ □ 0 □ x 0 ✓
 17, 34, 16, 34, 27, 32, 26, 26, 29, 15

□ ✓ ✓ □ ✓ □ 1 □ □ x x
 36, 18, 15, 38, 18, 37, 19, 35, 33, 24, 25, 17, 27

0 1 ✓ 1 □ 1 0 0 □ ✓ 0
 30, 20, 17, 40, 34, 20, 27, 28, 36, 17, 30, 39, 22

✓ x x x
 18, 24, 25, 25

No. Total: 40

Rango:

$$40 - 15 = 25$$

$$k = 1 + 3.322 \log 40 = 6.32 = 7$$

Amplitud:

$$A = \frac{R}{k} = \frac{25}{6.32} = 3.95 = 4$$

f5 = 5

Modo:

$$M_0 = L_i + \frac{f_i - f_{i-1}}{(f_i - f_{i-1}) + (f_i - f_{i+1})} \cdot a$$

$$M_0 = 15 + \frac{10 - 0}{(10 - 0) + (10 - 4)} \cdot 4$$

$$M_0 = 15 + \frac{10}{10 + 6} \cdot 4$$

$$M_0 = 15 + \frac{40}{16}$$

$$M_0 = 15 + 2.5$$

$$M_0 = 17.5$$