



INDICE

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MAESTRO: MAGNER JOEL HERRERA

MATERIA: ESTADISTICA DESCRIPTIVA

***NOMBRE DEL TRABAJO: MEDIDAS DE TENDENCIA
CENTRAL***

GRADO: 3

GRUPO: "C"

FECHA DE ENTREGA: 12/07/2020

①

Media:

10, 8, 6, 4, 9, 7, 10, 9, 6

$$10 + 8 + 6 + 4 + 9 + 7 + 10 + 9 + 6 = 69 \quad \frac{69}{9} = 7.66$$

$$\bar{x} = 7.66$$

Mediana:

~~4, 6, 6, 7, 8, 9, 9, 10, 10~~

$$Me = 8$$

Moda

4, 6, 6, 7, 8, 9, 9, 10, 10
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Mo 6, 9 y 10

$$\bar{x} = 7.66$$

$$Me = 8$$

$$Mo = 6, 9 y 10$$

②

media

9, 3, 8, 8, 9, 8, 9, 18

$$9 + 3 + 8 + 8 + 9 + 8 + 9 + 18 = \frac{72}{8} = 9$$

$$\bar{X} = 9$$

Mediana:

~~3, 8, 8, 8, 9, 9, 9, 18~~

$$8 + 9 = \frac{17}{2} = 8.5$$

$$Me = 8.5$$

$$\bar{X} = 9$$

$$Me = 8.5$$

$$Mo = 8 \vee 9$$

Moda:

3, 8, 8, 8, 9, 9, 9, 18

$$Mo = 8 \vee 9$$

Agrupados Puntualmente

(3)

X	f	F	X*f
44	1	1	44
45	4	5	180
49	1	6	49
53	1	7	53
54	1	8	54
55	2	10	110
56	1	11	56
57	1	12	57
Total	12		603

$\bar{X} = 50.2$
 $ME = 49$
 $MO = 45$

Media

$$\bar{X} = \frac{\sum X \cdot f}{n} = \frac{603}{12} = 50.25$$

$\bar{X} = 50.2$ baterias

mediana:

$$\text{Posición:} = \frac{n}{2} = \frac{12}{2} = 6$$

$ME = 49$ baterias

Moda:

$MO = 45$ baterias

Agrupados en intervalos

(A)

No. visitas	X	f	F	X * f	
1-3	2	2	2	4	$\bar{X} = 11.77$
4-6	5	4	6	20	Me = 11.28
7-9	8	13	19	104	Mo = 10.96
10-12	11	25	44	275	
13-15	14	12	56	168	
16-18	17	9	65	153	
19-21	20	5	70	100	
Total		70		824	

$$\bar{X} = \frac{\sum Xf}{n}$$

$$\bar{X} = \frac{824}{70} = 11.77$$

$$\bar{X} = 11.77 \text{ visitas}$$

$$me = \frac{10 + 35 - 9}{2} \cdot 2$$

$$me = 10 + \frac{16}{2} \cdot 2$$

$$me = 10 + 1.28$$

$$me = 11.28$$

Mediana:

$$Me = L_i + \frac{\frac{n}{2} - F_{i-1}}{f_i} \cdot A_i$$

$$\text{Posición:} = \frac{n}{2} = \frac{70}{2} = 35$$

$$L_i = 10$$

$$F_{i-1} = 19$$

$$n = 70$$

$$f_i = 25$$

$$A_i = L_3 - L_1 = 2$$

Moda

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

$$mo = 10 + \frac{12}{12 + 13} \cdot 2$$

$$mo = 10 + \frac{24}{25}$$

$$mo = 10 + 0.96 = 10.96$$