

NOMBRE DE LA ALUMNA:

**Aurora Isabel Gómez Santis.**

NOMBRE DEL PROFESOR:

**Jorge Enrique Albores.**

MATERIA:

**Probabilidad y estadística.**

SEMESTRE: **5to**

TRABAJO: **3**

FECHA DE ENTREGA:

**16 de octubre del 2021**

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 1. Ejercicio: 33000

8	7	6	9	9	
10	8	6	7	8	
7	8	7	7	6	
6	10	10	9	7	
10	10	10	10	7	
7	9	9	8	9	
			10	10	
64	68	63	69	65	Total: 329
528	588	519	605	541	Total: 2,781

$n = 40$

$\sum f_i = 329$   
 $\sum f_i^2 = 2,781$

$\bar{x} = \frac{\sum f_i}{n} = \frac{329}{40}$

$\bar{x} = 8.225$

MEDIA: 8.225

6	7	9	10
6	7	9	10
6	7	9	10
6	8	9	10
6	8	9	10
7	8	9	10
7	8	9	10
7	8	9	10
7	9	10	10
7	9	10	10
7	9	10	10
7	9	10	10

- 6 = 5
- 7 = 10
- 8 = 5
- 9 = 11
- 10 = 9

MODA: 9

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$$\frac{n}{2}, \frac{n}{2} + 1 \quad 8 + 9 = 17$$

$$\frac{40}{2}, \frac{40}{2} + 1 \quad \frac{17}{2} = 8.5$$

20, 21

MEDIANA: 8.5

8, 9

$$\begin{aligned} \sum f_i &= 329 \\ \sum f_i^2 &= 2,781 \end{aligned}$$

$$n = 40$$

$$s^2 = \frac{\sum f_i^2 - \frac{(\sum f_i)^2}{n}}{n-1}$$

VARIANZA:  
1.922

$$s^2 = \frac{2,781 - \frac{(329)^2}{40}}{39}$$

$$2,781 - (329^2 \div 40) = 74.975$$

$$\frac{74.975}{39} = 1.922$$

acer

### 1. Tabla de Frecuencia.

Criterios	"fi"	"Fi"	"fr"	"Fr"	Porcenta- de %
6	5	5	0.125	0.125	12.5%
7	10	15	0.25	0.375	25%
8	15	20	0.125	0.5	12.5%
9	11	31	0.275	0.775	27.5%
10	9	40	0.225	1	22.5%
Totales:	40		1		100%

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2do. Ejercicio.

15	12	11	11	10	15	
12	10	11	12	15	12	
10	10	10	10	15	11	
15	15	10	11	10	10	
10	10	12	12	10	12	
62	57	54	56	60	60	Total = 349
794	669	586	630	750	734	Total = 4,163

$$\begin{aligned} \sum f_i &= 349 & \bar{x} &= \frac{\sum f_i}{n} & \bar{x} &= \frac{349}{30} = 11.63 \\ \sum f_i^2 &= 4,163 & n & & & \end{aligned}$$

$$n = 30$$

MEDIA: 11.63

10	11	15
10	11	15
10	11	
10	12	
10	12	
10	12	
10	12	
10	12	
10	12	
10	15	
10	15	
11	15	
11	15	

$$10 = 12$$

$$11 = 5$$

$$12 = 7$$

$$15 = 6$$

MODA: 10

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MEDIANA: 15.5

$$Me = \frac{n+1}{2}$$

$$Me = \frac{30+1}{2} = \frac{31}{2} = 15.5$$

$$\sum f_i = 349$$

$$\sum f_i^2 = 4,163$$

VARIANZA:

3.55

$$s^2 = \frac{\sum f_i^2 - \frac{(\sum f_i)^2}{n}}{n-1}$$

$$s^2 = \frac{4,163 - \frac{(349)^2}{30}}{29}$$

$$4,163 - \frac{(349)^2}{30} = 102.96$$

$$\frac{102.96}{29} = 3.55$$

2. Tabla de Frecuencia.

Criterios	"Fi"	"Fi"	"Fr"	"Fr"	%
10	12	12	0.4	0.4	40 %
11	5	17	0.16	0.56	16 %
12	7	24	0.23	0.79	23 %
15	6	30	0.2	0.99	20 %
Totales	30		0.99		99 %

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