



NOMBRE DE LA ALUMNA:

Aurora Isabel Gómez Santis.

NOMBRE DEL PROFESOR:

Jorge Enrique Albores.

MATERIA:

Probabilidad y estadística.

BACHILLERATO:

Técnica en enfermería.

FECHA DE ENTREGA:

26 de septiembre 2021.

Ejercicio 1.

Realice los cálculos de media, mediana, moda, varianza, desviación estándar.

40	56	45	56	50	50	
55	60	55	67	49	59	
60	63	54	50	55	58	
63	50	50	46	48	60	
47	50	65	49	40	64	
40	49	62	58	44	72	
55	50	78	65	50	70	
50	54	84	62	45	68	
410	432	493	453	381	501	Total: = 2,670
21,528	23,522	31,675	26,075	18,291	31,749	= 152,840

$$\sum f_i = 2670$$

$$\sum f_i^2 = 152,840$$

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

$$n = 48$$

$$\bar{x} = \frac{2670}{48}$$

$$= 55.625$$

Media:
55.625

$$\sum f_i = 2,670$$

$$\sum f_i^2 = 152,840$$

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

$$S^2 = \frac{152,840 - \frac{(2,670)^2}{48}}{47}$$

$$\frac{152,840 - (2,670)^2 \div 48}{\div 47} = 4,321.25$$

$$\frac{4,321.25}{47} = 91.94$$

$$\boxed{\text{Varianza} = 91.94}$$

$$s = \sqrt{s^2}$$

$$s = \sqrt{91.94} = 9.58$$

Variación
Estandar: 9.58

2do. Ejercicio.

n = 56

27	40	44	35	34	57	35	38
35	87	35	44	44	55	87	45
40	35	60	78	35	78	35	56
78	44	66	76	55	54	88	67
35	35	76	89	80	86	44	77
44	40	82	35	66	94	35	78
56	85	35	70	77	90	80	35
315	366	398	427	391	514	404	396
15,935	22,380	24,842	29,067	24,027	39,606	27,324	24,332

$$\sum f_i = 3,211$$

$$\sum f_i^2 = 207,513$$

$$\bar{x} = \frac{3,211}{56} = 57.33$$

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

$$n = 56$$

Media = 57.33

$$\sum f_i = 3,211$$

$$\sum f_i^2 = 207,513$$

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

$$s^2 = \frac{207,513 - \left(\frac{3,211^2}{56}\right)}{55}$$

$$\frac{207,513 - (3,211^2 \div 56)}{\div 55} = 23,396$$

$$\frac{23,396}{55} = 425.38$$

$$\text{Varianza} = 425.38$$

$$S = \sqrt{S^2}$$

$$S = \sqrt{425.38} = 20.62.$$

Variacion
Estandar: 20.62