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**Nombre del trabajo: Ejercicios
unidad 2**

Materia: Estadística EDUCAR

Grado: 1°

Grupo: A

Comitán de Domínguez Chiapas 2021

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

Ejercicio 1

• Realice los cálculos:

- Media
- Moda
- Mediana
- Varianza
- Desviación estandar

- Media = $\bar{X} = \frac{\sum f_i}{n}$ $\sum f_i = 2670$ $N = 48$
 $\sum f_i^2 = 7,128,900$

$\bar{X} = \frac{2670}{48} = 55.62$

- Mediana =

$Me = \frac{n}{2}, \frac{n}{2} + 1$ $Me = \frac{48}{2}, \frac{48}{2} + 1 = 24, 25$

40, 40, 40, 44, 45, 45, 46, 47, 48, 49, 49, 49,
 50, 50, 50, 50, 50, 50, 50, 50, 50, 54, 54, 55,
 55, 55, 56, 56, 58, 58, 59, 60, 60, 60, 62,
 62, 63, 63, 64, 65, 65, 67, 68, 70, 72, 78, 84

$Me = \frac{55 + 55}{2} = \frac{110}{2} = 55$

- Moda = $Mo = 50$

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

$S^2 = \frac{7,128,900 - (\frac{2670}{48})^2}{48 - 1} = \frac{7,128,900 - (2670^2 \div 48)}{47}$

$S^2 = \frac{7,128,900 - 3,094,140}{47} = \frac{7,125,805.86}{47} = 151,612.89$

- Desviación estandar =

$S = \sqrt{S^2}$

$S = \sqrt{151,612.89}$

$S = 389.37$

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

Ejercicio 2

- Realice los cálculos:
 - Varianza
 - Media
 - Moda
 - Mediana
 - Desviación estandar

- Media = $\bar{X} = \frac{\sum f_i}{n}$ $\sum f_i = 3211$
 $n = 56$ $\sum f_i^2 = 10,310,521$

$\bar{X} = \frac{3211}{56}$
 $\bar{X} = 57.33$

- Mediana

27, 34, 35, 35, 35, 35, 35, 35, 35, 35,
 35, 35, 35, 35, 35, 38, 40, 40, 40, 44,
 44, 44, 44, 44, 44, 45, 54, 55, 55, 56,
 56, 57, 60, 66, 66, 67, 70, 76, 76, 77,
 77, 78, 78, 78, 78, 80, 80, 82, 85, 86,
 87, 87, 88, 89, 90, 94.

$n = 56$

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

$Me = \frac{56}{2}, \frac{56+1}{2} = 28, 29$

$me = \frac{55+55}{2} = \frac{110}{2} = 55$

- Moda = $mo = 35$

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

$s^2 = \frac{10,310,521 - (\frac{3211}{56})^2}{56-1} = \frac{10,310,521 - (3211^2 \div 56)}{55}$

$s^2 = \frac{10,310,521 - 184,116.446}{55} = \frac{10,1264,074}{55}$

$s^2 = 184,116.44$

- Desviación estandar

$S = \sqrt{s^2}$

$S = \sqrt{184,116.44}$

$S = 429.08$