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**Nombre del profesor: Jorge Enrique Albores.**

**Nombre del trabajo: Media, mediana, moda y desviación estándar.**

**Materia: Estadística descriptiva en nutrición.**

**Grado: 3° Cuatrimestre**

# TABLA DE DATOS

## EJERCICIO 1 Y 2

Sarina López González

### EJERCICIO 1

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 2

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

# TABLA DE DATOS

## EJERCICIO 1

Sarina López González

**MEDIA:**

$$\bar{X} = \frac{\sum x_i}{N}$$

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, 55, 56, 56, 58, 58, 59, 60, 60, 60, 62, 62, 63, 63, 64, 65, 65, 67, 68, 70,  
72, 78, 84.

$$\bar{X} = 40(3) + 44 + 45(2) + 46 + 47 + 48 + 49(3) + 50(9) + 54(2) + 55(4) + 56(2) + 58(2) +$$
$$59 + 60(3) + 62(2) + 63(2) + 64 + 65(2) + 67 + 68 + 70 + 72 + 78 + 84$$

48

$$\bar{X} = 120, 44, 90, 46, 47, 48, 147, 450, 108, 220, 112, 116, 59, 180, 124, 126, 64, 130,$$
$$67, 68, 70, 72, 78, 84$$

48

$$\bar{X} = \frac{2,670}{48} =$$

$$\bar{X} = 55.62$$

**MEDIANA:** (Me)

✓ Número de datos impar:

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, 55, 56, 56, 58, 58, 59, 60, 60, 60, 62, 62, 63, 63, 64, 65, 65, 67, 68, 70, 72,  
78, 84.

$$\text{Promedio } \bar{X} \rightarrow \frac{55 + 55}{2} = \frac{110}{2} = 55$$

# TABLA DE DATOS

## EJERCICIO 1

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MODA: ( $M_o$ )

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

$M_o = 50$

# DESVIACION ESTANDAR

40+40+40+44+45+45+46+47+48+49+49+50+50+50+50+50+50+50+50+50+50+50+50+54+54+55+55+55+55+55+55+56+58+58+59+60+60+60+62+62+

$$= \frac{2,670}{48} = 55.62 \quad 48 - 1 = 47$$

$x$	$x - \bar{x}$	$(x - \bar{x})^2$
40	40 - 55.62 = -15.62	(-15.62) <sup>2</sup> = 243.9844
40		
40		
44	44 - 55.62 = -11.62	(-11.62) <sup>2</sup> = 135.0244
45	45 - 55.62 = -10.62	(-10.62) <sup>2</sup> = 112.7844
46	46 - 55.62 = -9.62	(-9.62) <sup>2</sup> = 92.5444
47	47 - 55.62 = -8.62	(-8.62) <sup>2</sup> = 74.3044
48	48 - 55.62 = -7.62	(-7.62) <sup>2</sup> = 58.0644
49	49 - 55.62 = -6.62	(-6.62) <sup>2</sup> = 43.8244
50		
50	50 - 55.62 = -5.62	(-5.62) <sup>2</sup> = 31.5844
50		
50		
50		
50		
54	54 - 55.62 = -1.62	(-1.62) <sup>2</sup> = 2.6244
55	55 - 55.62 = -0.62	(-0.62) <sup>2</sup> = 0.3844
56	56 - 55.62 = -0.38	(-0.38) <sup>2</sup> = 0.1444
58	58 - 55.62 = 2.38	(2.38) <sup>2</sup> = 5.6644
59	59 - 55.62 = 3.38	(3.38) <sup>2</sup> = 11.4244
60	60 - 55.62 = 4.38	(4.38) <sup>2</sup> = 19.1844
62	62 - 55.62 = 6.38	(6.38) <sup>2</sup> = 40.7044
63	63 - 55.62 = 7.38	(7.38) <sup>2</sup> = 54.4644
64	64 - 55.62 = 8.38	(8.38) <sup>2</sup> = 70.2244
65	65 - 55.62 = 9.38	(9.38) <sup>2</sup> = 87.9844
67	67 - 55.62 = 11.38	(11.38) <sup>2</sup> = 129.5044
68	68 - 55.62 = 12.38	(12.38) <sup>2</sup> = 153.2644
70	70 - 55.62 = 14.38	(14.38) <sup>2</sup> = 206.7844
72	72 - 55.62 = 16.38	(16.38) <sup>2</sup> = 268.3044
78	78 - 55.62 = 22.38	(22.38) <sup>2</sup> = 500.8644
84	84 - 55.62 = 28.38	(28.38) <sup>2</sup> = 805.4244

$$2064.14$$

$$= \frac{\sqrt{2064.14}}{47} = \sqrt{43.91787} = 6.627$$

# TABLA DE DATOS

## EJERCICIO 2

Jarina López González

MEDIA:

$$\bar{X} = \frac{\sum x_i}{N}$$

27, 34, 35, 35, 35, 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.

$$\bar{X} = \frac{27 + 34 + 35(13) + 38 + 40(3) + 44(6) + 45 + 54 + 55(2) + 56(2) + 57 + 60 + 66(2) + 67 + 70 + 76(2) + 77(2) + 78(4) + 80(2) + 82 + 85 + 86 + 87(2) + 88 + 89 + 90 + 94}{56}$$

$$\bar{X} = \frac{27, 34, 455, 38, 120, 264, 45, 54, 110, 112, 57, 60, 132, 67, 70, 152, 154, 312, 160, 82, 85, 86, 174, 88, 89, 90, 94}{56}$$

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

$$\bar{X} = 57.33$$

MEDIANA (Me)

✓ Numero de datos PAR:

27, 34, 35, 35, 35, 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.

$$\text{Promedio } \bar{x} \rightarrow \frac{55 + 55}{2} = \frac{110}{2} = 55$$



