



**Mi Universidad**

## **ACTIVIDAD 2**

**NOMBRE DEL ALUMNO: JOHASAN ROBLERO MORALES**

**TEMA: MEDIDAS DE TENDENCIA CENTRAL, MEDIDAS DE DISPERSIÓN Y MEDIDAS DE POSICIÓN**

**PARCIAL: I**

**MATERIA: ESTADISTICA**

**NOMBRE DEL PROFESOR: ING. JOEL HERRERA ORDOÑEZ**

**LICENCIATURA: PSICOLOGIA**

### Ejercicio 1.

15, 15, 15, 16, 17, 18, 19, 19, 20, 21, 23, 23, 24, 25, 25, 25,  
28, 28, 29, 31, 32, 32, 32, 33, 33, 36, 41, 42, 43, 43.

$$\bar{x} = \frac{\sum x}{n} = \frac{803}{30} = 26.76$$

$$\text{med} = \frac{n+1}{2} = \frac{30+1}{2} = \frac{31}{2} = 15.5 = \frac{25+25}{2} = 25$$

$$\text{moda} = 15, 25, 32.$$

Ejercicio 2.

Datos: 2, 4, 6, 8

$$\bar{x} = \frac{20}{4} = 5$$

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

$$s^2 = \frac{(2-5)^2 + (4-5)^2 + (6-5)^2 + (8-5)^2}{4-1}$$

$$s^2 = \frac{9 + 1 + 1 + 9}{3} = \frac{20}{3} = 6.6$$

$$s = \sqrt{s^2} = \sqrt{6.6} = 2.56$$

$$C.V. = \frac{s}{\bar{x}} (100) = \frac{2.56}{5} (100) = 51.2$$

### Ejercicio 3

Cantidad de cuadernos vendidos	Número de días (f)	Punto medio (pm)	f * pm	(pm - $\bar{x}$ ) <sup>2</sup>	f * (pm - $\bar{x}$ ) <sup>2</sup>
5-10	3	7.5	22.5	100	300
10-15	7	12.5	87.5	25	175
15-20	10	17.5	175	0	0
20-25	8	22.5	180	25	200
25-30	1	27.5	27.5	100	100
30-35	1	32.5	32.5	225	225
Total	30		525	475	

$$pm = \frac{Li + Ls}{2}$$

$$\bar{x} = \frac{525}{30} = 17.5$$

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

$$s^2 = \frac{475}{29} = 16.37$$

$$s = \sqrt{16.37} = 4.04$$

$$C.V. = \frac{4.04}{17.5} (100) = 23.11$$

### Ejercicio 4.

1 2 3 4 5 6 7 8 9 10 11  
25, 28, 30, 30, 35, 35, 36, 37, 37, 38, 40,  
40, 40, 40, 40, 40, 41, 43, 48, 50

Determina

$$Q_2 =$$

$$Q_k = \frac{kn}{4}$$

$$D_k = \frac{kn}{10}$$

$$D_7 =$$

$$D_9 =$$

$$P_{15} =$$

$$P_k = \frac{kn}{100}$$

$$Q_2 = \frac{2(20)}{4} = \frac{40}{4} = 10 = 38 //$$

$$D_7 = \frac{7(20)}{10} = \frac{140}{10} = 14 = 40 //$$

$$D_9 = \frac{9(20)}{10} = \frac{180}{10} = 18 = 43 //$$

$$P_{15} = \frac{15(20)}{100} = \frac{300}{100} = 3 = 30 //$$