

### Ejercicio 1

Realice los cálculos de media, mediana, moda varianza, desviación estándar, para datos no agrupados.

|    |    |    |    |    |    |
|----|----|----|----|----|----|
| 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 |

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Ejercicio #1

|    |    |    |    |    |
|----|----|----|----|----|
| 40 | 48 | 50 | 55 | 60 |
| 40 | 49 | 50 | 55 | 60 |
| 40 | 49 | 50 | 55 | 60 |
| 44 | 49 | 50 | 55 | 62 |
| 45 | 50 | 50 | 56 | 62 |
| 45 | 50 | 54 | 58 | 63 |
| 46 | 50 | 54 | 58 | 63 |
| 47 | 50 | 55 | 59 | 64 |

$$n = 48$$

$$\sum f_1 = 2620$$

$$\sum f_1^2 = 151.240$$

$$\bar{x} = 54.5$$

$$Me = 24.25$$

$$Mo = 50$$

$$s^2 = 175.14$$

$$s = 13.23$$

$$\text{Media } \bar{x} = \frac{2620}{48} = 54.5$$

$$\text{Mediana } \frac{48}{2}, \frac{48}{2} + 1 = 24, 24 + 1 = 24.25$$

$$\text{Moda } 50 \text{ (Modal)}$$

$$\text{Varianza } s^2 = \frac{151,240 - \frac{(2620)^2}{48}}{48-1}$$

$$s^2 = \frac{151,240 - 143,008.3}{47}$$

$$s^2 = \frac{8231.7}{47} = 175.14$$

Desviación Estándar

$$\sqrt{175.14} = 13.23$$

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Ejercicio #2

|    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|
| 27 | 35 | 35 | 44 | 55 | 67 | 78 | 88 |
| 34 | 35 | 38 | 44 | 56 | 70 | 78 | 86 |
| 35 | 35 | 40 | 44 | 56 | 76 | 78 | 87 |
| 35 | 35 | 40 | 44 | 57 | 76 | 80 | 87 |
| 35 | 35 | 40 | 45 | 60 | 77 | 80 | 88 |
| 35 | 35 | 44 | 54 | 66 | 77 | 82 | 90 |
| 35 | 35 | 44 | 55 | 66 | 78 | 84 | 94 |

$$\text{Media } \bar{x} = \frac{3211}{56} = 57.33$$

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

$$\text{Moda} = 35$$

$$\text{Varianza } s^2 = \frac{206323 - \frac{(3211)^2}{56}}{56.1}$$

$$s^2 = \frac{206323 - 184,116.4}{55}$$

$$s^2 = 403.75$$

Desviación Estándar

$$\sqrt{403.75} = 20.09$$