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Nombre del trabajo: datos no agrupados

Materia: bioestadística

Grado: 4° cuatrimestre

Grupo: B

Comitán de Domínguez Chiapas a 16 de octubre del 2020

Ejercicio #1

10	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

$\Sigma y_i = 2670$
$\Sigma y_i^2 = 152840$

$$\bar{x} = \frac{\Sigma y_i}{n}$$

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

$$\bar{x} = 55.62$$

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

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

$$Me = 24, 24 + 1$$

$$Me = 24, 25$$

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

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

$$Me = 55$$

$$MO = 50$$

$$S^2 = \frac{\Sigma y_i^2 - \frac{(\Sigma y_i)^2}{n}}{n-1}$$

$$S^2 = \frac{152840 - \frac{(2670)^2}{48}}{48-1}$$

$$S^2 = \frac{152840 - \frac{7128900}{48}}{47}$$

$$S^2 = \frac{152840 - 148518.75}{47}$$

$$S^2 = \frac{4321.25}{47}$$

$$S^2 = 91.94$$

$$S = \sqrt{\frac{\Sigma y_i^2 - \frac{(\Sigma y_i)^2}{n}}{n-1}}$$

$$S = \sqrt{\frac{152840 - \frac{(2670)^2}{48}}{48-1}}$$

$$S = \sqrt{\frac{152840 - 148518.75}{47}}$$

$$S = \sqrt{\frac{4321.25}{47}}$$

$$S = \sqrt{91.94}$$

$$S = 9.58$$

$(40)^2 = 1600$
$1600 \times 3 = 4800$

$(44)^2 = 1936$

$(45)^2 = 2025$
$2025 \times 2 = 4050$

$(46)^2 = 2116$

$(47) = 2209$

$(48)^2 = 2304$

$(49)^2 = 2401$
$2401 \times 3 = 7203$

$(50)^2 = 2500$
$2500 \times 9 = 22,500$

$(54)^2 = 2916$
$2916 \times 2 = 5832$

$(55)^2 = 3025$
$3025 \times 4 = 12100$

$(56)^2 = 3136$
$3136 \times 2 = 6272$

$(58)^2 = 3364$
$3364 \times 2 = 6728$

$(59)^2 = 3481$

$(60)^2 = 3600$
$3600 \times 3 = 10800$

$(62)^2 = 3844$
$3844 \times 2 = 7688$

$(63)^2 = 3969$
$3969 \times 2 = 7938$

$(64)^2 = 4096$

$(65)^2 = 4225$
$4225 \times 2 = 8450$

$(67)^2 = 4489$

$(68)^2 = 4624$

$(70)^2 = 4900$

$(72)^2 = 5184$

$(78)^2 = 6084$

$(84)^2 = 7056$

Ejercicio #2

27	34	35	35	35	35	35	35	35	35	35	35
35	35	35	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	91					

$\Sigma y_i = 3211$

$\Sigma y_i^2 = 207513$

Media

$\bar{x} = \dfrac{\Sigma y_i}{n}$

$\bar{x} = \dfrac{3211}{56}$

$\bar{x} = 57.33$ //

Mediana

$Mc = \dfrac{n}{2}, \dfrac{n}{2} + 1$

$Mc = \dfrac{56}{2}, \dfrac{56}{2} + 1$

$Mc = 28, 28 + 1$

$Mc = 28, 29$

$Mc = \dfrac{55 + 55}{2}$

$Mc = \dfrac{110}{2}$

$Mc = 55$ //

Moda

$Mo = 35$

Varianza

$S^2 = \dfrac{\Sigma y_i^2 - \dfrac{(\Sigma y_i)^2}{n}}{n - 1}$

$S^2 = \dfrac{207513 - \dfrac{(3211)^2}{56}}{56 - 1}$

$S^2 = \dfrac{20758 - \dfrac{10310521}{56}}{55}$

$S^2 = \dfrac{207513 - 184116.44}{55}$

$S^2 = \dfrac{23396.56}{55}$

$S^2 = 425.39$ //

Desviación estandar

$S = \sqrt{\dfrac{\Sigma y_i^2 - \dfrac{(\Sigma y_i)^2}{n}}{n - 1}}$

$S = \sqrt{\dfrac{207513 - \dfrac{(3211)^2}{56}}{56 - 1}}$

$S = \sqrt{\dfrac{207513 - \dfrac{10310521}{56}}{55}}$

$S = \sqrt{\dfrac{207513 - 184116.44}{55}}$

$S = \sqrt{\dfrac{23396.56}{55}}$

$S = \sqrt{425.39}$

$S = 20.62$ //

$(27)^2 = 729$

$(34)^2 = 1156$

$(35)^2 = 1225$
$1225 \times 13 = 13925$

$(38)^2 = 1444$

$(40)^2 = 1600$
$1600 \times 3 = 4800$

$(44)^2 = 1936$
$1936 \times 6 = 11616$

$(45)^2 = 2025$

$(54)^2 = 2916$

$(55)^2 = 3025$
$3025 \times 2 = 6050$

$(56)^2 = 3136$
$3136 \times 2 = 6272$

$(57)^2 = 3249$

$(60)^2 = 3600$

$(66)^2 = 4356$
$4356 \times 2 = 8712$

$(67)^2 = 4489$

$(70)^2 = 4900$

$(76)^2 = 5776$
$5776 \times 2 = 11552$

$(77)^2 = 5929$
$5929 \times 2 = 11858$

$(78)^2 = 6084$
$6084 \times 4 = 24336$

$(80)^2 = 6900$
$6900 \times 2 = 12800$

$(82)^2 = 6724$

$(85)^2 = 7225$

$(86)^2 = 7396$

$(87)^2 = 7569$
$7569 \times 2 = 15138$

$(88)^2 = 7744$

$(89)^2 = 7921$

$(90)^2 = 8100$

$(94)^2 = 8836$