IPRAM

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Curso: **Estadística**

Grado: **4to Perito en Administración de Empresas**

Tarea 8

Punteos de 25 alumnos en un examen de Contabilidad de Socirdades

~~70~~ ~~66~~ ~~72~~ ~~75~~ ~~74~~ ~~81~~ ~~76~~ ~~75~~ ~~78~~ ~~76~~
~~65~~ ~~71~~ ~~81~~ ~~80~~ ~~72~~ ~~90~~ ~~81~~ ~~81~~ ~~72~~ ~~66~~
~~55~~ ~~49~~ ~~84~~ ~~79~~ ~~83~~

49 55 65 66 66 70 72 72 72 74
75 75 76 76 77 78 79 80 81 81
81 81 83 84 90

$K = 1 + 3.322 \text{ Long } (25)$
$K = 1 + 3.322 \ (1.39794$
$K = 1 + 4.64$
$K = 5.64$

$R = 90 - 49 + 1$
$R = 41 + 1$
$R = 42$

$i = \frac{42}{5.64} \quad i = 7.45 \quad i = 7$

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K	LA	Lri	Lrs	xs	f	fo	fxs
1	49 - 55	48.5	55.5	52	2	2	104
2	56 - 62	55.5	62.5	59	0	2	0
3	63 - 69	62.5	69.5	66	3	5	198
4	70 - 76	69.5	76.5	73	9	14	657
5	77 - 83	76.5	83.5	80	9	23	720
6	84 - 90	83.5	90.5	87	2	25	174

Media aritmetica

$\bar{X} = \frac{1853}{25} = 74.12$

Mediana

$md = 69.5 + \left(\frac{12.5 - 5}{9}\right)7$

$md = 69.5 + \left(\frac{7.5}{9}\right)7$

$md = 69.5 + (0.83)7$

$md = 69.5 + 5.81$

$md = 75.31$

$\Delta 1 = 9 - 9 = 0$

$\Delta 2 = 9 - 2 = 7$

Moda

$mo = 76.5 + \left(\frac{0}{0+7}\right)7$

$mo = 76.5 + \left(\frac{0}{7}\right)7$

$mo = 76.5 + (0)7$

$mo = 76.5 + 0$

$mo = 76.5$

Q_0 = Cuartiles

Q_1

$Q_1 = 69.5 \left(\frac{6.25 - 5}{9}\right)7$

$Q_1 = 69.5 + \left(\frac{1.25}{9}\right)7$

$Q_1 = 69.5 + (0.14)7$

$Q_2 = 69.5 + 0.98$

$Q_2 = 70.48$

Q_2

$Q_2 = 69.5 + \left(\frac{12.5 - 5}{9}\right)7$

$Q_2 = 69.5 + \left(\frac{7.5}{9}\right)7$

$Q_2 = 69.5 + (0.83)7$

$Q_2 = 69.5 + 5.81$

$Q_2 = 75.31$

Q_3 =

$Q_3 = 76 + \left(\frac{18.75 - 14}{9}\right)7$

$Q_3 = 76.5 + \left(\frac{4.75}{9}\right)7$

$Q_3 = 76.5 + (0.53)7$

$Q_3 = 76 + 3.71$

$Q_3 = 80.21$

Deciles

D_2

$$D_2 = 62.5 + \left(\frac{5-2}{3}\right)7$$

$$D_2 = 62.5 + \left(\frac{3}{3}\right)7$$

$$D_2 = 62.5 + (1)7$$

$$D_2 = 62.5 + 7$$

$$D_2 = 69.5$$

D_6

$$D_6 = 76.5 + \left(\frac{15-14}{9}\right)7$$

$$D_6 = 76.5 + \left(\frac{1}{9}\right)7$$

$$D_6 = 76.5 + (0.11)7$$

$$D_6 = 76.5 + 0.77$$

$$D_6 = 77.27$$

D_9

$$D_9 = 76.5 + \left(\frac{22.5-14}{9}\right)7$$

$$D_9 = 76.5 + \left(\frac{8.5}{9}\right)7$$

$$D_9 = 76.5 + (0.94)7$$

$$D_9 = 76.5 + 6.58$$

$$D_9 = 83.08$$

Percentiles

P_{15}

$$P_{15} = 62.5 + \left(\frac{3.75-2}{3}\right)7$$

$$P_{15} = 62.5 + \left(\frac{1.75}{3}\right)7$$

$$P_{15} = 62.5 + (0.58)7$$

$$P_{15} = 62.5 + 4.06$$

$$P_{15} = 66.56$$

P_{70}

$p_{70} = 76.5 + \left(\frac{17.5 - 14}{9}\right)7$

$p_{70} = 76.5 + \left(\frac{3.5}{9}\right)7$

$p_{70} = 76.5 + (0.39)7$

$p_{70} = 76.5 + 2.73$

$p_{70} = 79.23$

$P_{95} =$

$p_{95} = 83.5 + \left(\frac{23.75 - 23}{2}\right)7$

$p_{95} = 83.5 + \left(\frac{0.75}{2}\right)7$

$p_{95} = 83.5 + (0.38)7$

$p_{95} = 83.5 + 2.66$

$p_{95} = 86.16$

Poligono de Frecuencias Puntos de 25 alumnos en un examen de Contabilidad de Sociedad