Semana 8

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Instrucciones: Realice lo que se le pide a Ponteos de 25 alumnos en un examen Contabilidad.

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

$K = 1. + 3.322 \log(n)$

$K = 1. + 3.322 \log(25)$

$K = 1. + 3.322 (1.397941)$

$K = 1. + 4.64$

$K = 5.64$

R = Dma Dme +1

$R = 90 - 40 + 1$

$R = 41 + 1$

$R = 42$

Intervalo

$I = \frac{R}{K} = \frac{42}{5.64}$

$I = 7.45$

$i = 7$

Puntaos de 25 alumnos en un examen de contabilidad de sociedades

KL	CA	Li	Ls	XS	F	Fa	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

$\Sigma FXS = 1,853$

$\tilde{X} = \frac{\Sigma FXS}{N}$

$\bar{X} = \frac{1,853}{25} = 74.12$

$Md = Li + \left(\frac{\frac{N}{2} - Fa\,a}{F}\right)i$

$Md = 69.5 + \left(\frac{[25 - 5]}{9}\right)7$

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

$Md = 69.5 + (0.8317$

$Md = 69.5 + 5.81$

$Md = +5.31$

Cuartiles

$Q_1 = L_{Q_1} + \left(\frac{N/4 - F_{aQ_1}}{f}\right) i$ $\quad \frac{25}{4} = 6.25$

$Q_1 = 2.5 + \left(\frac{6.25 - 5}{9}\right) 7$

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

$Q_1 = 69.5 + (0.14) 7 \quad Q_1 = 69.5 + 9.8 = 79.98$

$Q_1 =$

$Q_2 = L_{Q_2} + \left(\frac{N/4 - F_{aQ_1}}{f}\right) i$ $\quad \frac{2125}{9} = 125$

$Q_2 = 2.5 + \left(\frac{125 - 5}{9}\right) 7$ $\quad Q = 69.5 + \left(\frac{7.5}{9}\right) 7$

$Q_2 = 69.5 + (0.83) 7$ $\quad Q = 69.5 + 5.81$

$Q_2 = 75.31$

$Q_3 = 76.5 + \left(\frac{18.75 - 14}{9}\right) 7$ $\quad \frac{3 \times 25}{4} = 18.75$

$Q_3 = 76.5 + \left(\frac{4.75}{9}\right) 7$ $\quad Q_3 = 76.5 + (0.53) 7$

$Q_3 = 76.5 + 3.71$ $\quad Q_3 = 80.21$

Deciles

$D2 = Li + \left(\frac{N12}{f} - Faqli\right)i$ $\quad \frac{2 \times 25}{10} = 5$

$D2 = 62.5 + \left(\frac{5 - 2}{3}\right)7$

$D2 = 62.5 + \left(\frac{3}{3}\right)7$

$D2 = 62.5 + (1)7$ $\quad 62 + 7 =$ **$D2 = 69.5$**

$D6 = Li + \left(\frac{N \times 6}{f} - Faqli\right)i$

$D6 = 76.5 + \left(\frac{150 - 141}{9}\right)7$

$D6 = 76.5 + \left(\frac{10}{9}\right)7$

$D6 = 76.5 + (0.111)7$ $\quad D6 = 76.5 + 077$ **$D6 = 77.2$**

$D9 = 76.5 + \left(\frac{225 - 141}{9}\right)7$ $\quad \frac{9 \times 25}{10} = 22.5$

$D9 = 76.5 + \left(\frac{850}{9}\right)7$

$D9 = 76.5 + (0.94)7$ $\quad D9 = 76. + 658$ **$D9 = 83.08$**

Percentiles:

$D15 = \frac{25 \times 15}{100} = 3.75$

$D15 = 62.5 + \left(\frac{3.75 - 2}{3}\right) 7$

$D15 = 62.5 + \left(\frac{1.75}{3}\right) 7$

$D15 = 62.5 + (0.58) 7$

$D15 = 62.5 + 4.06$

$D15 = 66.56$

$D70 = 76.5 + \left(\frac{17.5 - 14}{9}\right) 7$

$D70 = 76.5 + \left(\frac{3.5}{9}\right) 7$

$D70 = 76.5 + (0.39) 7$

$D70 = 76.5 + 2.73$

$D70 = 79.23$

$D70 = \frac{25 \times 70}{100}$

17.5

$D95 = \frac{25 \times 95}{100} = 23.75$

$D95 = 83.5 + \left(\frac{23.75 - 23}{2}\right) 7$

$D95 = 83.5 + \left(\frac{0.75}{2}\right) 7$

$D95 = 83.5 + (0.38) 7$

$D95 = 83 + 2.66$

$D95 = 86.16$