

Instituto Privado Arévalo Martínez.



Asignatura: Estadística I.

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Alumna: María Isabel Palacios Barrios.

Carrera: 4to. Bachillerato en Computación con Orientación Comercial.

Sección: ``A``

Ciclo Escolar: 2021.

Trabajo: Actividades Tercera Unidad/ Lección 4- Semana 22.

Lección 4; Semana 22

Instrucciones Complete la siguiente tabla y calcule los Deciles 1, 3, 5, 6, 9.

"Puntajes Obtenidos por 25 Alumnos en un examen de Estudios Sociales I de Primero Básico."

| Intervalo | Lri | F | Fa |
|-----------|------|---|----|
| 49-55 | 48.5 | 2 | 2 |
| 56-69 | 55.5 | 3 | 5 |
| 70-76 | 69.5 | 9 | 14 |
| 77-83 | 76.5 | 9 | 23 |
| 84-90 | 83.5 | 2 | 25 |

D₁

D₂, D₅

D₆, D₉

Decil #1

$$D_1 = L_{ri} + \left(\frac{\frac{N \cdot i}{10} - F_{cia}}{F} \right) i$$

$$\frac{25 \times 1}{10} = 2.5$$

$$D_1 = 55.5 + \left(\frac{2.5 - 2}{3} \right) 7$$

$$D_1 = 55.5 + \left(\frac{0.5}{3} \right) 7 \rightarrow D_1 = 55.5 + 1.17$$

$$D_1 = 55.5 + (0.17) \rightarrow \underline{D_1 = 56.69} \#$$

Decil # 3

$$D_3 = \left(n + \frac{\left(\frac{N_3}{10} - F_{ad} \right)}{F} \right) i \quad \frac{25 \times 3}{10} = \frac{75}{10} = 7.5$$

$$D_3 = 69.5 + \left(\frac{7.5 - 5}{9} \right) 7$$

$$D_3 = 69.5 + \left(\frac{2.5}{9} \right) 7$$

$$D_3 = 69.5 + (0.28) 7$$

$$D_3 = 69.5 + 1.96$$

$$\underline{D_3 = 71.46} //$$

Decil # 5

$$D_5 = \left(n + \frac{\left(\frac{N_5}{10} - F_{ad} \right)}{F} \right) i \quad \frac{25 \times 5}{10} = \frac{125}{10} = 12.5$$

$$D_5 = 69.5 + \left(\frac{12.5 - 5}{9} \right) 7$$

$$D_5 = 69.5 + \left(\frac{7.5}{9} \right) 7$$

$$D_5 = 69.5 + (0.83) 7$$

$$D_5 = 69.5 + 5.81$$

$$\underline{D_5 = 75.31} //$$

Decimal #6

$$D_6 = Cr_i + \left(\frac{N_6 - F_{6a}}{F} \right) i$$

$$\frac{25 \times 6}{70} = \frac{150}{70} = 2.14$$

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

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

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

$$D_6 = 76.5 + 0.77$$

$$\underline{D_6 = 77.27} \quad //$$

Decimal #9

$$D_9 = Cr_i + \left(\frac{N_9 - F_{9a}}{F} \right) i$$

$$\frac{25 \times 9}{70} = \frac{225}{70} = 3.21$$

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

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

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

$$D_9 = 76.5 + 6.58$$

$$\underline{D_9 = 83.08} \quad //$$