

"Tarea 6"

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Macario

4to. admon
Castillo

Calcular percentiles 15, 70, 95.

Puntajes obtenidos por 25 alumnos
en un examen de estudios sociales
110. básico.

Intervalo	Li	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

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

$P_{15} = 55.5 + \frac{(3.75 - 2)}{3} \times (69.5 - 55.5)$

$P_{15} = 55.5 + 10.5817$

$P_{15} = 55.5 + 4.1$

$P_{15} = 59.6$

C_p 70

$$\frac{25 \times 70}{100} = 17,5$$

$$p_{70} = 76,5 + \frac{(17,5 - 14)}{9} \cdot 7$$

$$p_{70} = 76,5 + \frac{(3,5)}{9} \cdot 7$$

$$p_{70} = 76,5 + 10,39 \cdot 7$$

$$p_{70} = 76,5 + 2,73$$

$$p_{70} = \boxed{79,23}$$

C_p 95

$$\frac{25 \times 95}{100} = 23,75$$

$$p_{95} = 83,5 + \frac{(23,75 - 23)}{2} \cdot 7$$

$$p_{95} = 83,5 + (0,38) \cdot 7$$

$$p_{95} = 83,5 + 2,66$$

$$p_{95} = \boxed{86,16}$$