



# Instituto Privado

## “Rafael Arévalo Martínez”

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**Carrera:** Magisterio de Educación Preprimaria

**Grado:** 5to.

**Curso:** Estadística

## Semana #7 Percentiles

a) 28, 25, 30, 51, 60, 21, 49, 19, 58.

$$\begin{array}{cccccccc} 21 & - & 25 & - & 28 & - & 30 & - & 49 & - & 49 & - & 51 & - & 58 & - & 60 \\ 21 & & & & 35 & & & & & & & & & & & & \end{array}$$

$$P_{21} = 21 \left( \frac{9+1}{100} \right) = P_{21} = 21 \left( \frac{10}{100} \right) = P_{21} = \frac{210}{100} = \textcircled{2.1}$$

$$P = 25 + (28 - 25) (0.1) = 25 + (3) (0.1) = 0.3$$

$$P = 25 + 0.3 = \textcircled{25.3}$$

$$P_{35} = 35 \left( \frac{9+1}{100} \right) = P_{35} = 35 \left( \frac{10}{100} \right) = P_{35} = \frac{350}{100} = \textcircled{3.5}$$

$$P = 28 + (30 - 28) (0.5) = P = 28 + (2) (0.5) = 1$$

$$P = 28 + 1 = \textcircled{29}$$

b.) 19, 24, 41, 12, 50, 80, 90, 23

$$\frac{12-19-23-24-41-50-80-90}{21 \quad 35}$$

$$P_{21} = 21 \left( \frac{8+1}{100} \right) = P_{21} = 21 \left( \frac{9}{100} \right) = P_{21} = \frac{189}{100} = 1.89$$

$$P = 12 + (19 - 12)(0.89) \quad P = 12 + (7)(0.89) = 6.23$$

$$P_{21} = 12 + 6.23 = 18.23$$

$$P_{35} = 35 \left( \frac{8+1}{100} \right) = P_{35} = 35 \left( \frac{9}{100} \right) = P_{35} = \frac{315}{100} = 3.15$$

$$P = 23 + (24 - 23)(0.15) \quad P = 23 + (1)(0.15) = 0.15$$

$$P_{35} = 23 + 0.15 = 23.15$$

c.) 34, 14, 12, 51, 47, 50, 62, 29, 49, 99, 101, 85

$$\frac{12-14-34-47-49-50-51-62-85-89-99-101}{21 \quad 35}$$

$$P_{21} = 21 \left( \frac{12+1}{100} \right) = P_{21} = 21 \left( \frac{13}{100} \right) = P_{21} = \frac{273}{100} = 2.73$$

$$P = 14 + (34 - 14)(0.73) = P = 14 + (20)(0.73) = 14.6$$

$$P_{21} = 14 + 14.6 = 28.6$$

$$P_{35} = 35 \left( \frac{12+1}{100} \right) = P_{35} = 35 \left( \frac{13}{100} \right) = P_{35} = \frac{455}{100} = 4.55$$

$$P = 47 + (49 - 47) (0.55) = P = 47 + (2) (0.55) = 1.1$$

$$P = 47 + 1.1 = 48.1$$