



Instituto Privado

"Rafael Arévalo Martínez"

Nombre de la Estudiante: Melva Saraí Aguirre Rodas

Nombre del Catedrático: Fredy Barrios

Carrera: Magisterio de Educación Preprimaria

Grado: 5to.

Curso: Estadística

Semana #7 Percentiles

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

$$21 - \frac{25}{21} = \frac{28}{35} - 30 - 49 - 49 - 51 - 58 - 60$$

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

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

$$P = 25 + 0.3 = 25.3$$

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

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

$$P = 28 + 1 = 29$$

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

$$\frac{12}{21} - \frac{19}{21} = \frac{23}{35} - \frac{24}{35} = \frac{41}{50} - \frac{49}{50} = \frac{50}{80} - \frac{50}{80} = \frac{80}{90} - \frac{90}{90}$$

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

$$P = 12 + (19 - 12)(0.89) \quad P = 12 + 7(0.89) = 18.23$$

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

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

$$P = 23 + (24 - 23)(0.15) \quad P = 23 + 1(0.15) = 23.15$$

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

c.) 34, 14, 12, 51, 47, 50, 62, 39, 49, 99, 101, 85

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

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

$$P = 14 + (34 - 14)(0.73) = P = 14 + 20(0.73) = 28.6$$

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

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

$$P = 47 + (49 - 47)(0.55) = P = 47 + (2)(0.55) = 48.1$$

$$P = 47 + 1.1 = 48.1$$