

Actividad #7

Hallar los percentiles 21 y 35 de las siguientes series de datos. No agrupados

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

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

$$P_{21} = 25 + (28 - 25)(0.1)$$

$$P_{21} = \frac{25 + (3)(0.1)}{25 + 0.3}$$

$$P_{21} = 25.3$$

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

$$P_{35} = 28 + (30 - 28)(0.5)$$

$$P_{35} = \frac{28 + (2)(0.5)}{28 + 1}$$

$$P_{35} = 29$$

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

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

$$P_{21} = 12 + (19 - 12)(0.89)$$

$$P_{21} = \frac{12 + (7)(0.89)}{12 + 6.23}$$

$$P_{21} = 18.23$$

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

$$P_{35} = 23 + (24 - 23)(0.15)$$

$$P_{35} = \frac{23 + (1)(0.15)}{23 + 0.15}$$

$$P_{35} = 23.15$$

c) 34, 14, 12, 51, 47, 50, 62, 89, 49, 99, 76, 85
 12, 14, 34, 47, 49, 50, 51, 62, 85, 89, 99, 101

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

$$P_{21} = 14 + (34 - 14)(0.73)$$

$$P_{21} = \frac{14 + (20)(0.73)}{14 + 14.6}$$

$$P_{21} = 28.6$$

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

$$P_{35} = 47 + (49 - 47)(0.55)$$

$$\frac{47 + (2)(0.55)}{47 + 1.1}$$

$$P_{35} = 48.1$$