

Actividad # 7

Percentiles

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

$$K \frac{(n+1)}{100} = \frac{21(9+1)}{100} = \frac{21(10)}{100} = \frac{210}{100} = 2.1$$

$$P_{21} = X_{\text{menor}} + (X_{\text{mayor}} - X_{\text{menor}}) (\text{parte decimal})$$

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

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

$$P_{21} = 25 + 0.3$$

$$P_{21} = 25.3$$

El percentil

es

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

$$P_{35} = X_{\text{menor}} + (X_{\text{mayor}} - X_{\text{menor}}) (\text{parte decimal})$$

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

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

$$P_{35} = 28 + 1$$

$$P_{35} = 29$$

El percentil 35 es 29

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

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

$P_{21} = X_{\text{menos}} + (X_{\text{Mayor}} - X_{\text{menos}}) (\text{parte decimal})$

$$P_{21} = 12 + (19 - 12)(0.24)$$

$$P_{21} = 12 + (7)(0.24)$$

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

$P_{21} = 18.23$ El percentil 21 es 18.23

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

$P_{35} = X_{\text{menos}} + (X_{\text{Mayor}} - X_{\text{menos}}) (\text{parte decimal})$

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

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

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

$$P_{35} = 23.15$$

El percentil de 35 es 23.15

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

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

$$P_{21} = X_{\text{menor}} + (X_{\text{mayor}} - X_{\text{menor}}) (\text{parte decimal})$$

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

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

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

$$P_{21} = 28.6$$

El percentil 21 es 28.6

$$P_{35} = X_{\text{menor}} + (X_{\text{mayor}} - X_{\text{menor}}) (\text{parte decimal})$$

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

$$P_{35} = 47 + (2) (0.55)$$

$$P_{35} = 47 + 1.1$$

$$P_{35} = 48.1$$

El percentil 35 es 48.1