

Actividad #6

Hallar los cuartiles 1, 2 y 3 de las siguientes series de datos No agrupados

a) 35, 20, 15, 5, 3, 5, 6, 21
3, 5, 5, 6, 15, 20, 21, 35

$$Q_1 = \frac{1(8+1)}{4} = \frac{1(9)}{4} = \frac{9}{4} = Q_1 = 2.25$$

$$Q_1 = 5 + (5-5)(0.25) = 5 + (0)(0.25)$$
$$Q_1 = 5$$

$$Q_2 = \frac{2(8+1)}{4} = \frac{2(9)}{4} = \frac{18}{4} = Q_2 = 4.5$$

$$Q_2 = 6 + (15-6)(0.5) = 6 + (9)(0.5)$$

$$Q_2 = 6 + 4.5 = Q_2 = 10.5$$

$$Q_3 = \frac{3(8+1)}{4} = \frac{3(9)}{4} = \frac{27}{4} = Q_3 = 6.75$$

$$Q_3 = 20 + (21-20)(0.75)$$

$$Q_3 = 20 + (1)(0.75) = 20 + 0.75$$

$$Q_3 = 20.75$$

b) 15, 20, 30, 18, 50, 81
15, 18, 22, 30, 50, 81

$$Q_1 = \frac{1(6+1)}{4} = \frac{1(7)}{4} = \frac{7}{4} = 2.1 = 1.75$$

$$Q_1 = 15 + (18-15)(0.75)$$

$$Q_1 = 15 + (3)(0.75) = 15 + 2.25$$

$$Q_1 = 17.25$$

$$Q_2 = 2 \left(\frac{6+1}{4} \right) = 2 \left(\frac{7}{4} \right) = \frac{14}{4} = Q_2 = 3.5$$

$$Q_2 = 22 + (30 - 22)(0.5)$$

$$Q_2 = 22 + (8)(0.5) = 22 + 4$$

$$Q_2 = 26$$

$$Q_3 = 3 \left(\frac{6+1}{4} \right) = 3 \left(\frac{7}{4} \right) = \frac{21}{4} = Q_3 = 5.25$$

$$Q_3 = 50 + (81 - 50)(0.25)$$

$$Q_3 = 50 + (31)(0.25) = 50 + 7.75$$

$$Q_3 = 57.75$$

$$C \quad 22, 14, 16, 41$$

$$14, 16, 22, 41$$

$$Q_1 = 1 \left(\frac{4+1}{4} \right) = 1 \left(\frac{5}{4} \right) = \frac{5}{4} = Q_1 = 1.25$$

$$Q_1 = 14 + (16 - 14)(0.25)$$

$$Q_1 = 14 + (2)(0.25) = 14 + 0.5$$

$$Q_1 = 14.5$$

$$Q_2 = 2 \left(\frac{4+1}{4} \right) = 2 \left(\frac{5}{4} \right) = \frac{10}{4} = Q_2 = 2.5$$

$$Q_2 = 16 + (22 - 16)(0.5)$$

$$Q_2 = 16 + (6)(0.5) = 16 + 3$$

$$Q_2 = 19$$

$$Q_3 = 3 \left(\frac{4+1}{4} \right) = 3 \left(\frac{5}{4} \right) = \frac{15}{4} = 3.75$$

$$Q_3 = 22 + (41 - 22)(0.75)$$

$$Q_3 = 22 + (19)(0.75) = 22 + 14.25$$

$$Q_3 = 36.25$$