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Área: Estadística

Grado: 5º. Carrera: Magisterio de Educación Preprimaria

Actividad: 6

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Catedrática: Freddy Barrios.

Actividad 6

14/06/21

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

$Q1 = 1\frac{(8+1)}{4} = Q1 = 1\frac{(9)}{4} = \frac{9}{4} = Q1 = 2.25$

$Q1 = 5 + (5-5)(0.25)$
$Q1 = 5 + (0)(0.25)$
$Q1 = 5 + 0$
$Q1 = 5$

Q1 = 5

$Q2 = 2\frac{(8+1)}{4} = Q2 = 2\frac{(9)}{4} = Q2 = \frac{18}{4} = 4.5$

$Q2 = 6 + (15-6)(0.5)$
$Q2 = 6 + (9)(0.5)$
$Q2 = 6 + 4.5$
$Q2 = 10.5$

Q2 = 10.5

$Q3 = 3\frac{(8+1)}{4} = Q3 = 3\frac{(9)}{4} = Q3 = \frac{27}{4} = Q3 = 6.75$

$Q3 = 20 + (21-20)(0.75)$
$Q3 = 20 + (1)(0.75)$
$Q3 = 20 + 0.75$
$Q3 = 20.75$

Q3 = 20.75

b) 15, 22, 30, 16, 50, 81

15, 16, 22, 30, 50, 81

$Q1 = 1\frac{(6+1)}{4} \rightarrow Q1 = 1\frac{(7)}{4} = \frac{7}{4} \rightarrow Q1 = 1.75$

$Q1 = 15 + (16 - 15)(0.75)$
$Q1 = 15 + (1)(0.75)$
$Q1 = 15 + 0.75$
$Q1 = 15.75$

$Q1 = 15.75$

$Q2 = 2\frac{(6+1)}{4} \rightarrow Q2 = 2\frac{(7)}{4} = \frac{14}{4} \rightarrow Q2 = 3.5$

$Q2 = 22 + (30 - 22)(0.5)$
$Q2 = 22 + (8)(0.5)$
$Q2 = 22 + 4$
$Q1 = 26$

$Q2 = 26$

$Q3 = 3\frac{(6+1)}{4} \rightarrow Q3 = 3\frac{(7)}{4} = \frac{21}{4} = 5.25$

$Q3 = 50 + (81 - 50)(0.25)$
$Q3 = 50 + (31)(0.25)$
$Q3 = 50 + 7.75$
$Q3 = 57.75$

$Q3 = 57.75$

C) 22, 14, 16, 41

14, 16, 22, 41

$Q1 = 1\frac{(4+1)}{4} = Q1 = 1\frac{(5)}{4} = \frac{5}{4} = Q1 = 1.25$

$Q1 = 14 + (16 - 14)(0.25)$
$Q1 = 14 + (2)(0.25)$
$Q1 = 14 + 0.5$
$Q1 = 14.5$

$Q1 = 14.5$

$Q2 = 2\frac{(4+1)}{4} = Q2 = 2\frac{(5)}{4} = \frac{10}{4} = Q2 = 2.5$

$Q2 = 16 + (22 - 16)(0.5)$
$Q2 = 16 + (6)(0.5)$
$Q2 = 16 + 3$
$Q2 = 19$

$Q2 = 19$

$Q3 = 3\frac{(4+1)}{4} = Q3 = 3\frac{(5)}{4} = \frac{15}{4} = 3.75$

$Q3 = 22 + (41 - 22)(0.75)$
$Q3 = 22 + (19)(0.75)$
$Q3 = 22 + 14.25$
$Q3 = 36.25$

$Q3 = 36.25$