

**NOMBRE DEL TRABAJO:** EJERCICIOS

**MATERIA:** ESTADISTICA DESCRIPTIVA



**PRESENTA EL ALUMNO:** MISAEL ESPINOSA AGUILAR

**MODALIDAD:** SEMIESCOLARIZADO

**Comitan De Domínguez Chiapas**

**a 13 De Junio De 2020**

Intervalo	f <sub>i</sub>	F
10-15	8	8
15-20	12	20
20-25	3	23
25-30	6	29
30-35	4	33
35-40	10	43
40-45	9	52
45-50	8	60
50-55	7	67

Coartiles  
1, 2, 3

① Posición  $Q_1 = \frac{(1)(67)}{4} = \frac{67}{4} = 16.75$

$$Q_1 = 15 + 5 \left( \frac{16.75 - 8}{20 - 8} \right) = 15 + 5 \left( \frac{8.75}{12} \right) = 15 + 3.645 = \underline{18.645}$$

② Posición  $Q_2 = \frac{(2)(67)}{4} = \frac{134}{4} = 33.5$

$$Q_2 = 35 + 5 \left( \frac{33.5 - 33}{43 - 33} \right) = 35 + 5 \left( \frac{0.5}{10} \right) = 35 + 0.25 = \underline{35.25}$$

③ Posición  $Q_3 = \frac{(3)(67)}{4} = \frac{201}{4} = 50.25$

$$Q_3 = 40 + 5 \left( \frac{50.25 - 43}{52 - 43} \right) = 40 + 5 \left( \frac{7.25}{9} \right) = 40 + 4.027 = \underline{44.027}$$

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10-15	8	8
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20-25	3	23
25-30	6	29
30-35	4	33
35-40	10	43
40-45	9	52
45-50	8	60
50-55	7	67

Deciles  
2, 4, 6, 8, 9

$$* \text{Posición } D_2 = \frac{(2)(67)}{10} = \frac{134}{10} = 13.4$$

$$D_2 = 15 + 5 \left( \frac{13.4 - 8}{20 - 8} \right) = 15 + 5 \left( \frac{5.4}{12} \right) = 15 + 2.25 = \underline{17.25}$$

$$* \text{Posición } D_4 = \frac{(4)(67)}{10} = 26.8$$

$$D_4 = 25 + 5 \left( \frac{26.8 - 23}{29 - 23} \right) = 25 + 5 \left( \frac{3.8}{6} \right) = 25 + 3.16 = \underline{28.166}$$

$$* \text{Posición } D_6 = \frac{(6)(67)}{10} = \frac{402}{10} = 40.2$$

$$D_6 = 35 + 5 \left( \frac{40.2 - 33}{43 - 33} \right) = 35 + 5 \left( \frac{7.2}{10} \right) = 35 + 3.6 = \underline{38.6}$$

$$\text{Posición } D_8 = \frac{(8)(67)}{10} = 53.6$$

$$D_8 = 45 + 5 \left( \frac{53.6 - 52}{60 - 52} \right) = 45 + 5 \left( \frac{1.6}{8} \right) = 45 + 1 = \underline{46}$$

$$* \text{Posición } D_9 = \frac{(9)(67)}{10} = 60.3$$

$$D_9 = 50 + 5 \left( \frac{60.3 - 60}{67 - 60} \right) = 50 + 5 \left( \frac{0.3}{7} \right) = 50 + 0.214 = \underline{50.214}$$

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Percentiles  
9, 55, 69, 72

$$P_{9} = \frac{(9)(67)}{100} = 6.03$$

$$P_{9} = 10 + 5 \left( \frac{6.03 - 0}{8 - 0} \right) = 10 + 5 \left( \frac{6.03}{8} \right) = 10 + 3.76 = \underline{13.76}$$

$$P_{55} = \frac{(55)(67)}{100} = 36.85$$

$$P_{55} = 35 + 5 \left( \frac{36.85 - 33}{43 - 33} \right) = 35 + 5 \left( \frac{3.85}{10} \right) = \underline{36.925}$$

$$P_{69} = \frac{(69)(67)}{100} = 46.23$$

$$P_{69} = 40 + 5 \left( \frac{46.23 - 43}{52 - 43} \right) = 40 + 5 \left( \frac{3.23}{9} \right) = 40 + 1.794 = \underline{41.794}$$

$$P_{72} = \frac{(72)(67)}{100} = 48.24$$

$$P_{72} = 40 + 5 \left( \frac{48.24 - 43}{52 - 43} \right) = 40 + 5 \left( \frac{5.24}{9} \right) = 40 + 2.911 = \underline{42.911}$$