Calculation Sheet

Mean(ȳ) = 1/N ∑fiyi , AD/MD= 1⁄N [∑i  fi |yi – A|], N = ∑fi SD = [(Σifi (yi – ȳ) 2 ⁄ N] ½ Cov( X,Y) = 1/n[Σi (yi – ȳ)(xi –x)

µr´ = 1/N∑fi( Xi-A)r , µr = 1/N∑fi(yi – ȳ) r Q1, Q2 and Q3.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Class Interval | fi | yi | fi yi | cf | (yi – ȳ) | (yi – ȳ)2 | (yi – ȳ)3 | (yi – ȳ)4 | f (yi – ȳ) | f (yi – ȳ)2 | f (yi – ȳ)3 | f (yi – ȳ)4 |
| 0-10 | 4 | 5 | 20 | 4 |  |  |  |  |  |  |  |  |
| 10-20 | 14 | 15 | 210 | 18 |  |  |  |  |  |  |  |  |
| 20-30 | 18 | 25 | 450 | 36 |  |  |  |  |  |  |  |  |
| 30-40 | 24 | 35 | 840 | 60 |  |  |  |  |  |  |  |  |
| 40-50 | 25 | 45 | 1125 | 85 |  |  |  |  |  |  |  |  |
| 50-60 | 15 | 55 | 825 | 100 |  |  |  |  |  |  |  |  |
| Total | 100 |  | 3470 |  |  |  |  |  |  |  |  |  |

Mean=3470/100=34.7

¼(100)= 25, ½(100)= 50, ¾(100)=75

Q1 = L +(N/4-cf)/f\* h= 20 +(25-18)\*10/18= 20+70/18 ( use link <https://www.emathematics.net/statistics.php?tipo=cuartil>) and calculate remaining quartiles and moments.