

Statistics Practical Works

Paper

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Part I

First Paper

Chapter 1

Chapter

1.1 Construction of Frequency Distribution

1.1.1 Problem

The following information represent amount of rainfall in 30 districts in Bangladesh.

360 442 452 438 449 387 383 348 315 347 308 313 494 477 413
335 495 420 424 396 322 398 327 349 316 488 496 443 337 460

Make a frequency distribution from the data and interpret.

1.1.2 Solution

1.1.3 Theory

To make a frequency distribution, we require three things.

- Range, $R = \text{Highest Value} - \text{Lowest value}$
- Number of class, $k = 1 + 3.322 \log_{10} N$
- Class Interval, $CI = \frac{R}{k}$

1.2 Determination of Arithmetic Mean, Combined Arithmetic Mean, Geometric Mean, Harmonic Mean from Grouped and Ungrouped Data.

1.2.1 Problem

- Heights (in cm) of 10 students in a class are given below:

169, 172, 159, 165, 164, 170, 172, 175, 180, 150

Find AM, GM, and HM.

- Income of 100 individuals are collected (in thousand BDT)

| Income Level | 10-20 | 20-30 | 30-50 | 50-80 | 80-120 |
|--------------|-------|-------|-------|-------|--------|
| Frequency | 35 | 24 | 20 | 16 | 5 |

Find AM, GM, and HM.

1.2.2 Solution

Theory

Formula.

| Type | Grouped | Ungrouped |
|------|---------|-----------|
| AM | | |
| GM | | |
| HM | | |

- Equipment/Tools
- Computation
- Construction
- Interpretation
- Precaution

Conclusion

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