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**Sampling Distribution and Estimation**

**Lab: 1**

**Project 1.2: For Ungrouped Data**

**OBJECT:**

ENTER THE FOLLOWING VALUES IN SPSS AND CALCULATE MEAN, S.D, RANGES, MODE, MEDIAN

|  |  |  |
| --- | --- | --- |
| WEIGHT | MID VALUE | FREQUENCY |
| 20-30 | 25 | 4 |
| 30-40 | 35 | 6 |
| 40-50 | 45 | 7 |
| 50-60 | 55 | 21 |
| 60-70 | 65 | 23 |
| 70-80 | 75 | 2 |

**WORKING EXPRESSIONS:**

We have,

1. Mean (X) =
2. Median (Md) =
3. Standard Deviation (S.D.) =
4. Range = max – min
5. Mode = maximum repetition of data
6. Standard error (S.E.) =

Note: Where represents the sum of all the items in the dataset and n represent the number of items in the given dataset.

**CALCULATION:**

From SPSS,

MEAN, S.D, RANGES, MODE, MEDIAN FROM THE GIVEN DATA IS SHOWN THROUGH THE TABLE

|  |  |  |
| --- | --- | --- |
| **Statistics** | | |
| Weights | | |
| N | Valid | 6 |
| Missing | 0 |
| Mean | | 49.83 |
| Std. Error of Mean | | 7.705 |
| Median | | 50.00 |
| Mode | | 25a |
| Std. Deviation | | 18.872 |
| Variance | | 356.167 |
| Range | | 50 |
| Minimum | | 25 |
| Maximum | | 75 |
|  | | |

**RESULT:**

From the above table, the following results were obtained:

1. Mean = 49.83
2. Median = 50.00
3. Standard Deviation = 18.872
4. Range = 50
5. Mode = 25 (Multiple modes exists. The smallest value is shown)

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**Lab: 1**

**Project 1.2: For Ungrouped Data**

**OBJECT:**

ENTER THE FOLLOWING VALUES IN SPSS AND CALCULATE MEAN, S.D, RANGES, MODE, MEDIAN

WEIGHTS: 25, 35, 45, 55, 65, 76