

THE UNIVERSITY OF ZAMBIA

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

DEM 2414: RESEARCH AND STATISTICAL METHODS IN DEMOGRAPHY

TUTORIAL EXERCISE NO. 1

1.
 - a) Discuss the major functions of a statistician in research, management, planning and consultancy work.
 - b) What is the difference between descriptive and statistical inference.

2. Each of 10 children in the second grade at Lusaka Girls Primary School was given a reading aptitude test. The scores are given below. Compute the mean, median, and standard deviation and interpret the results.

95, 86, 78, 90, 62, 73, 89, 92, 74

3. A representative sample $n=5$ overdue accounts at FNB yields the following amounts due in Kwacha

55.20	4.88	271.95
18.06	108.29	365.29
28.16	399.11	807.80
44.14	97.47	9.98
61.61	56.89	82.73

- a) Determine the mean amount due for 15 accounts sampled.
- b) If there are 150 overdue accounts, use the sample mean to predict the total amount for all 150 accounts.

4. Given below is frequency data for the performance of students in an DEM 2414 test.

Class Interval	Frequency
20-29	9
30-39	21
40-49	26
50-59	40
60-69	50
70-79	30
80-89	18
90-99	6

- a) Compute the mean, median, mode, and standard deviation and interpret the results.
 - b) Compute the semi-interquartile range and interpret the results.
 - c) Find the scores corresponding to the 46th and 85th percentiles
 - d) Find the percentile ranks of two female students one with a score for grade of 35% and another with a score for grade of 87%.
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