

Statistics – Comparison of CAPS, approved book1 and Siyavula

Book 1
Intro to stats
Definition of data
Definition of statistics
Finding averages or measures of central tendency
average or measure of central tendency of a data set represent typical
three measure are mean, mode and median
Mean = \bar{x} =
Median is
Mode is
Example of finding mean, mode and median
Example combining two data sets
Explanation of outliers, mean influenced by outlier, median not, mode
Exercise
Advantages and disadvantages of mean, median and mode
Mean
Median
Mode
Types of data
Quantitative and qualitative
Quantitative or numerical and examples
Qualitative and examples
Example of whether quantitative or qualitative
Exercises
Frequency tables
What is frequency and tally
Example
Exercises
Stem and leaf diagrams
Example
Exercises
Grouped data
Explanation of grouped
Example - midpoint of
Exercise
Measures of dispersion or spread around the mean
Explanation of dispersion vs central tendency
Range
Quartiles
Explanation
Interquartile range
Example
Box and whisker diagrams
Example
Exercise
Semi-interquartile range
Other sub-divisions
median
quartiles
deciles
percentiles
Use and abuses
outliers
misleading graphs

CAPS
Revise measures of central tendency in ungrouped data
Measures of central tendency in grouped data
mean estimate for grouped data
modal interval
interval in which median lies
Revision of range
Percentiles
Quartiles
Interquartile range
semi interquartile range
Five number summary (min, max and quartiles)
Box and whisker plots

Siyavula
Intro text
Insert practical example - graph, histogram, article, etc
Data and data collection
Definition of data
Primary and secondary data
Qualitative and quantitative
Methods of collection
Samples and populations
Example data sets
Summarizing data
Measures of central tendency
Intro discussion on need for measures
Mean
Definition
Worked example
Mention outliers and impact thereof
Median
Definition
Mention not influenced by outliers
Worked example – uneven number elements
Worked example – even number elements
Mode
Definition
Not influenced by outliers, only occur if repetition of items
Worked example
Measures of dispersion
Intro to why measures of dispersion is needed
Range
Definition
Mention affected by outliers
Example
Quartiles
Definition
Example
Interquartile range
Definition
Example
Semi inter-quartile range
Definition
Example
Percentiles
Five number summary
Box and whisker plots
Description
Example
Grouped data
Intro to grouped and application to measures
Worked example
Worked example – another one on applying all to grouped
Applications
Misuse of statistics