Capstone — Analysing 120 fictional assessments

Notes for SHS • Topic 75 • All example student data are synthetic.

1 — Number of records

Count unique synthetic assessment records. Verified: 120.

Student calculation: _____

Interpretation: _____

2 — Overall mean

Compute total 8261 ÷ 120. Verified: 68.8417.

Student calculation: _____

Interpretation: _____

3 — Overall median

Order scores. Verified: 69.

Student calculation: _____

Interpretation: _____

4 — Mode

Count every distinct score. Verified: 67; frequency 7.

Student calculation: _____

Interpretation: _____

5 — Range

Max 99 minus min 8 = 91.

Student calculation: _____

Interpretation: _____

6 — Subject comparison

Calculate mean and median separately for every subject; each has 20 records.

Student calculation: _____

Interpretation: _____

7 — Frequency table

Use seven disjoint score bands; counts 1, 4, 14, 42, 39, 16, 4 = 120.

Student calculation: _____

Interpretation: _____

8 — Outlier investigation

Tukey Q1=62, Q3=75, fences 42.5, 94.5; 4 potential outlier records.

Student calculation: _____

Interpretation: _____

9 — Weighted example

Quiz 80×20%, assignment 70×30%, exam 60×50%; verified 67 points.

Student calculation: _____

Interpretation: _____

10 — Research report

Write five source-grounded statements and five limits; do not infer causation or generalize without a design.

Student calculation: _____

Interpretation: _____