

EXAM 4 STUDY GUIDE

VARIABILITY

Definition of variability

Advantages and disadvantages to each measure

How outliers affect each measure

Why sample formulas subtract 1 from n

Range

- Definition
- Formula
- Be able to hand calculate

IQR

- Definition
- Formula
- Be able to obtain given Q1, Q2, Q3, Q4
- Be able to obtain based on a frequency table

Sum of Squares

- Definition
- Definitional vs. Computational formulas
- Be able to hand calculate using either formula

Variance

- Definition
- Definitional vs. Computational formulas
- Be able to hand calculate using either formula
- Population vs. Sample formulas
- Be able to hand calculate given the standard deviation

Standard deviation

- Definition
- Population vs. Sample formulas
- Be able to hand calculate given the variance

Z SCORES & AREA UNDER THE NORMAL CURVE

Z score

- Definition
- How it's used and interpreted
- Formula
- Be able to hand calculate
- Location in a normal distribution
- Determine raw score given Z score and SD
- Determine SD given Z score and SD

Percentages under the curve of a normal distribution

- Between +1 / -1 SD
- Between +2 / -2 SD
- Between +3 / -3 SD

Determine area using the Z table

- Determine Z score given a specific proportion/percentage
- Determine proportion/percentage given a Z score
- Finding proportion/percentage between two Z scores
- Determine the two raw scores between which a given percent of the sample can be found (e.g., middle 20%)