

## Chapter 1

1. What is the difference between population and sample?

*The population is the complete set of items that interest an investigator. A sample is an observed subset of a population.*

2. What is the difference between simple random sampling and systematic sampling?

*Simple random sampling is a procedure where objects are randomly selected. Systematic sampling involves the selection of every  $j$ th item in the population.*

3. What is the difference between a parameter and a statistic?

*A parameter describes a specific characteristic of the population. A statistic describes a specific characteristic of a sample.*

4. What are non-sampling errors?

*The population actually sampled is not the relevant one. Participants can give inaccurate or dishonest answers. Participants give no response.*

5. What is the difference between descriptive statistics and inferential statistics?

*Descriptive is to summarize and process data. Inferential focuses on using the data.*

6. There are two forms of numeric variables, which one?

*Discrete variables and continuous variables.*

7. What is the difference between qualitative and quantitative data?

*With qualitative data, there is no measurable difference in meaning between the numbers. With quantitative there is a measurable meaning to the difference.*

8. What levels of measurement are used for qualitative data?

*Nominal and ordinal.*

9. What levels of measurement are used for quantitative data?

*Interval and ratio.*

10. Which tables and graphs are mainly used for nominal level of measurement?

*Bar chart, cross table, pie chart, pareto diagram.*

11. Which graphs are mainly used to describe numerical variables?

*Frequency distribution, histogram, ogive, stem-and-leaf display, scatter plot.*