

# Quiz 1 Review Questions

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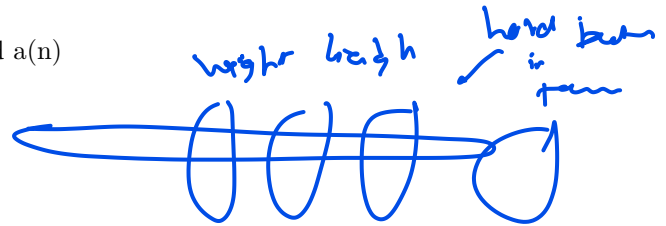
**MULTIPLE CHOICE.** Choose the one alternative that best completes the statement or answers the question

1. The manager of a car dealership records the colors of automobiles on a used car lot. Identify the type of data collected.
  - a. quantitative
  - b. qualitative *ST/1 1'*
2. Which data about paintings would not be qualitative?
  - a. the artist
  - b. the value *777*
  - c. the style
  - d. the theme
3. The nominal scale of measurement has the properties of the
  - a. ordinal scale */*
  - b. only interval scale
  - c. ratio scale
  - d. None of these alternatives is correct. *o*
4. Some hotels ask their guests to rate the hotel's services as excellent, very good, good, and poor. This is an example of the
  - a. ordinal scale *11*
  - b. ratio scale
  - c. nominal scale
  - d. interval scale
5. The ratio scale of measurement has the properties of
  - a. only the ordinal scale
  - b. only the nominal scale
  - c. the rank scale
  - d. the interval scale
6. Temperature in Fahrenheit is an example of a variable that uses
  - a. the ratio scale *]*

*Nominal*  
*ordinal*  
*interval*  
*Ratio*

- b. the interval scale //
  - c. the ordinal scale ~~is~~
  - d. either the ratio or the ordinal scale
7. The interval scale of measurement has the properties of the
- a. ratio and nominal scales
  - b. ratio and ordinal scales
  - c. ratio scale
  - d. None of these alternatives is correct.
8. Arithmetic operations are inappropriate for
- a. the ratio scale
  - b. the interval scale
  - c. both the ratio and interval scales
  - d. the nominal scale //
9. Income is an example of a variable that uses the
- a. ratio scale
  - b. interval scale
  - c. nominal scale
  - d. ordinal scale
10. The scale of measurement that has an inherent zero value defined is the
- a. ratio scale
  - b. nominal scale
  - c. ordinal scale
  - d. interval scale
11. Quantitative data refers to data obtained with a(n)
- a. ordinal scale
  - b. nominal scale
  - c. either interval or ratio scale
  - d. only interval scale
12. The entities on which data are collected are
- a. elements /
  - b. populations
  - c. samples /
  - d. None of these alternatives is correct.
13. The set of measurements collected for a particular element is (are) called
- a. variables
  - b. observations /
- lecture note I
- lecture note I

- c. samples
  - d. None of these alternatives is correct.
14. A characteristic of interest for the elements is called a(n)
- a. sample
  - b. data set
  - c. variable
  - d. None of these alternatives is correct.



15. Quantitative data
- a. are always nonnumeric
  - b. may be either numeric or nonnumeric
  - c. are always numeric
  - d. None of these alternatives is correct.

16. Qualitative data
- a. indicate either how much or how many
  - b. can not be numeric
  - c. are labels used to identify attributes of elements
  - d. must be nonnumeric

17. Social security numbers consist of numeric values. Therefore, social security is an example of
- a. a quantitative variable
  - b. either a quantitative or a qualitative variable
  - c. an exchange variable
  - d. a qualitative variable

18. How many scales of measurement exist?
- a. 1
  - b. 2
  - c. 3
  - d. 4

19. A frequency table displays the proportion of observations falling into each class.
- a. True
  - b. False

20. All class intervals in a histogram have the same width.
- a. True
  - b. False

21. A histogram can be constructed using either class frequencies or class relative frequencies as the heights of the bars.
- a. True

- b. False
22. A frequency distribution is a tabular summary of data showing the
- a. fraction of items in several classes
  - b. percentage of items in several classes
  - c. relative percentage of items in several classes
  - d. number of items in several classes

**PROBLEM**

1. Below you are given the examination scores of 20 students.

52	99	92	86	84
63	72	76	95	88
92	58	65	79	80
90	75	74	56	99

- a. Construct a grouped frequency distribution, relative frequency distribution, cumulative frequency distribution and cumulative relative frequency distribution for this data. Use the methods you learnt in class.
- b. Draw the relevant diagrams for frequency distribution and cumulative frequency distribution.

*Sturges formula*  
 $1 + 8.3 \log_{10} 26$

(extra space)