

R Exams

Statistics Exam 2019-03-14

Exam ID 00002

Name: _____

Student ID: _____

Signature: _____

1. (a) ☒ (b) ☐
2. (a) ☒ (b) ☐
3. (a) ☐ (b) ☒ (c) ☐ (d) ☒
4. (a) ☒ (b) ☐
5. (a) ☐ (b) ☒
6. (a) ☐ (b) ☒
7. (a) ☐ (b) ☒
8. (a) ☐ (b) ☐ (c) ☒
9. (a) ☐ (b) ☒
10. (a) ☐ (b) ☒
11. (a) ☐ (b) ☒
12. (a) ☒ (b) ☐ (c) ☐ (d) ☐ (e) ☐

13. (a) ☐ (b) ☒ (c) ☐ (d) ☐ (e) ☐
14. (a) ☐ (b) ☐ (c) ☐ (d) ☒ (e) ☐
15. (a) ☐ (b) ☐ (c) ☒ (d) ☐ (e) ☐
16. (a) ☒ (b) ☐ (c) ☐ (d) ☐ (e) ☐
17. (a) ☒ (b) ☐ (c) ☐ (d) ☐ (e) ☐
18. (a) ☐ (b) ☒
19. (a) ☐ (b) ☒
20. (a) ☐ (b) ☐ (c) ☒ (d) ☐ (e) ☒ (f) ☒ (g) ☒ (h) ☒
 (i) ☒

1. **Problem**

Part of understanding statistics is understanding what results mean in real life.

- (a) True
- (b) False

Solution

- (a) True.
- (b) False.

2. **Problem**

The purpose of statistics is to make things more complicated.

- (a) False
- (b) True

Solution

- (a) True.
- (b) False.

3. **Problem**

What is a data frame in R?

- (a) It is used for displaying graphical data.
- (b) It is a structure for storing data sets.
- (c) There is not such thing in R.
- (d) It is a convenient way to group study data used for an analysis.

Solution

- (a) False.
- (b) True.
- (c) False.
- (d) True.

4. **Problem**

$x=2$ and $x<-2$ mean the same thing in R.

- (a) True
- (b) False

Solution

- (a) True.
- (b) False.

5. **Problem**

Rstudio needs R to run.

- (a) False

- (b) True

Solution

- (a) False.
- (b) True.

6. Problem

A variable we think is a CAUSE is called an INDEPENDENT variable or IV for short.

- (a) False
- (b) True

Solution

- (a) False.
- (b) True.

7. Problem

Another name for a dependent variable (DV) is an outcome variable.

- (a) False
- (b) True

Solution

- (a) False.
- (b) True.

8. Problem

In a study examining how quickly and accurately nurses chart on an EMR page when different layouts are used, nurses are divided into three groups. One group charts on the regular EMR page. One group charts on modified layout #1. And one group charts on modified layout #2. After all nurses have completed their charting, the time to complete charting and the number of mistakes are measured. What type of variable is number of mistakes?

- (a) not enough information
- (b) independent variable
- (c) dependent variable

Solution

- (a) False.
- (b) False.
- (c) True.

9. Problem

Randomization is one way we try to reduce unsystematic variation.

- (a) False
- (b) True

Solution

- (a) False.
- (b) True.

10. Problem

Longitudinal research measures at multiple points in time.

- (a) False
- (b) True

Solution

- (a) False.
- (b) True.

11. Problem

Validity means we measure what we intend to measure.

- (a) False
- (b) True

Solution

- (a) False.
- (b) True.

12. Problem

What is the level of measurement for a variable called age?

- (a) not enough information
- (b) ordinal
- (c) nominal
- (d) ratio
- (e) interval

Solution

- (a) True.
- (b) False.
- (c) False.
- (d) False.
- (e) False.

13. Problem

What level of measurement is a variable called parts per million where measurements look like 10, 15, 18, 20, etc.?

- (a) nominal
- (b) ratio

- (c) ordinal
- (d) not enough information
- (e) interval

Solution

- (a) False.
- (b) True.
- (c) False.
- (d) False.
- (e) False.

14. Problem

What level of measurement is a variable called race results where measurements look like first, second, third, etc.?

- (a) ratio
- (b) not enough information
- (c) nominal
- (d) ordinal
- (e) interval

Solution

- (a) False.
- (b) False.
- (c) False.
- (d) True.
- (e) False.

15. Problem

What level of measurement is a variable called temperature in Celsius where measurements look like 36, 36.5, 37, 38. etc.?

- (a) ordinal
- (b) nominal
- (c) interval
- (d) ratio
- (e) not enough information

Solution

- (a) False.
- (b) False.
- (c) True.
- (d) False.
- (e) False.

16. **Problem**

What level of measurement is a variable called year in school where measurements look like freshman, sophomore, junior, senior?

- (a) ordinal
- (b) ratio
- (c) not enough information
- (d) nominal
- (e) interval

Solution

- (a) True.
- (b) False.
- (c) False.
- (d) False.
- (e) False.

17. **Problem**

What level of measurement is a variable called weight in pounds where measurements look like 125, 135, 150, 195, 210, etc.?

- (a) ratio
- (b) ordinal
- (c) nominal
- (d) interval
- (e) not enough information

Solution

- (a) True.
- (b) False.
- (c) False.
- (d) False.
- (e) False.

18. **Problem**

Categorical variables are made up of categories.

- (a) False
- (b) True

Solution

- (a) False.
- (b) True.

19. **Problem**

Interval variables have a numerically meaningful zero point.

- (a) True
- (b) False

Solution

- (a) False.
- (b) True.

20. Problem

What is true of interval level data?

- (a) The distance between measurement points is unknown and inconsistent.
- (b) It is the next to lowest level of measurement.
- (c) Multiplication and division are not really appropriate.
- (d) It is a categorical variable.
- (e) Zero is arbitrary.
- (f) The mean, median, and mode are meaningful measures of central tendency.
- (g) Addition and subtraction may be performed.
- (h) Usually psychometric measurements.
- (i) The appropriate descriptive statistics are mean and standard deviation.

Solution

- (a) False.
- (b) False.
- (c) True.
- (d) False.
- (e) True.
- (f) True.
- (g) True.
- (h) True.
- (i) True.