

Chapter 2

Test Bank

Multiple Choice

1. The definition of a variable is
- anything that can take on more than one value
 - a label for quantitative data
 - a label for qualitative data
 - any numerical value

Ans: A

Cognitive Domain: Knowledge

Answer Location: First Things First

Difficulty Level: Easy

2. Select which of the following would be considered a variable:
- color of an egg
 - weight of a newborn baby
 - score on SAT
 - all of these

Ans: D

Cognitive Domain: Comprehension

Answer Location: First Things First

Difficulty Level: medium

3. The term *measurement* means
- a numerical value or rating
 - the assignment of labels to a variable or outcome
 - the development of a rating scale
 - the utilization of ratio data in statistical analysis

Ans: B

Cognitive Domain: Knowledge

Answer Location: First Things First

Difficulty Level: Easy

4. In 1946, S. S. Stevens helped develop _____.
- experimental procedure
 - the accepted definition of measurement
 - the levels of measurement
 - the scientific method

Ans: C

Cognitive Domain: Comprehension

Answer Location: First Things First

Difficulty Level: Easy

5. What represents how much information is being provided by an outcome measure?
- level of measurement
 - interval data
 - ratio data
 - measurement scale

Ans: A

Cognitive Domain: Comprehension

Answer Location: The Four Horsemen (or Levels) of Measurement

Difficulty Level: Medium

6. What is the level of measurement that deals with differences in quality rather than quantity?

- nominal
- ratio
- interval
- ordinal

Ans: A

Cognitive Domain: Knowledge

Answer Location: The Nominal Level of Measurement

Difficulty Level: Easy

7. Nominal measurements deal with what type of data?

- numerical
- statistical
- categorical
- theoretical

Ans: C

Cognitive Domain: Comprehension

Answer Location: The Nominal Level of Measurement

Difficulty Level: Easy

8. How many categories can nominal data be placed into?

- zero
- one
- multiple
- unlimited

Ans: B

Cognitive Domain: Application

Answer Location: The Nominal Level of Measurement

Difficulty Level: Medium

9. If two teams were playing baseball, what would be an example of a type of nominal data?

- number of runs scored
- number of hits

- c. team names
- d. all of these

Ans: C

Cognitive Domain: Application

Answer Location: The Nominal Level of Measurement

Difficulty Level: Medium

10. The color of a car is an example of what type of data?

- a. nominal
- b. ratio
- c. ordinal
- d. interval

Ans: A

Cognitive Domain: Application

Answer Location: The Nominal Level of Measurement

Difficulty Level: Medium

11. Categories in a nominal scale are _____.

- a. easily defined
- b. mutually exclusive
- c. inherently controversial
- d. well designed

Ans: B

Cognitive Domain: Knowledge

Answer Location: The Nominal Level of Measurement

Difficulty Level: Easy

12. Rank order is a characteristic of what type of measurement?

- a. nominal
- b. interval
- c. ratio
- d. ordinal

Ans: D

Cognitive Domain: Knowledge

Answer Location: The Nominal Level of Measurement

Difficulty Level: Easy

13. The ordinal level of measurement

- a. creates a ranking of categories
- b. describes categories
- c. assigns qualitative value to categories
- d. eliminates categories

Ans: A

Cognitive Domain: Knowledge

Answer Location: The Ordinal Level of Measurement

Difficulty Level: Easy

14. If a blue car was ranked faster than a red car, what type of measurement would this be?

- a. nominal
- b. ordinal
- c. ratio
- d. interval

Ans: B

Cognitive Domain: Application

Answer Location: The Ordinal Level of Measurement

Difficulty Level: Medium

15. Ordinal data tell us

- a. what categories exist
- b. how much difference exists between categories
- c. order of ranking of categories
- d. all of these

Ans: C

Cognitive Domain: Knowledge

Answer Location: The Ordinal Level of Measurement

Difficulty Level: Easy

16. What would be an application of ordinal measurement?

- a. ranking of stress causes
- b. description of stress causes
- c. analysis of blood pressure changes from stress
- d. a stress test

Ans: A

Cognitive Domain: Knowledge

Answer Location: The Ordinal Level of Measurement

Difficulty Level: Easy

17. With what level of data do you assign names?

- a. nominal
- b. ordinal
- c. ratio
- d. interval

Ans: A

Cognitive Domain: Knowledge

Answer Location: The Nominal Level of Measurement

Difficulty Level: Easy

18. With what level of data do you assign rank?

- a. nominal
- b. ordinal
- c. ratio

d. interval

Ans: B

Cognitive Domain: Application

Answer Location: The Ordinal Level of Measurement

Difficulty Level: Medium

19. With what level of data can you compare position along a continuum?

a. nominal

b. ordinal

c. ratio

d. interval

Ans: D

Cognitive Domain: Knowledge

Answer Location: The Interval Level of Measurement

Difficulty Level: Easy

20. A student could get a 60% on an exam and be ranked number one in the class using what type of measurement?

a. nominal

b. ordinal

c. ratio

d. interval

Ans: D

Cognitive Domain: Knowledge

Answer Location: The Interval Level of Measurement

Difficulty Level: Easy

21. What level of measurement has an absolute zero?

a. nominal

b. ordinal

c. ratio

d. interval

Ans: C

Cognitive Domain: Knowledge

Answer Location: The Ratio Level of Measurement

Difficulty Level: Easy

22. The ability to have a complete absence of a characteristic is related to what level of measurement?

a. nominal

b. ordinal

c. ratio

d. interval

Ans: C

Cognitive Domain: Knowledge

Answer Location: The Ratio Level of Measurement

Difficulty Level: Easy

23. What is the least likely level of measurement to be used in social sciences?

- a. nominal
- b. ordinal
- c. interval
- d. ratio

Ans: D

Cognitive Domain: Knowledge

Answer Location: The Ratio Level of Measurement

Difficulty Level: Easy

24. Rainfall is an example of what type of measurement?

- a. nominal
- b. ordinal
- c. interval
- d. ratio

Ans: D

Cognitive Domain: Knowledge

Answer Location: The Ratio Level of Measurement

Difficulty Level: Easy

25. Weight is an example of what type of measurement?

- a. nominal
- b. ordinal
- c. interval
- d. ratio

Ans: D

Cognitive Domain: Knowledge

Answer Location: The Ratio Level of Measurement

Difficulty Level: Easy

26. What is the level of measurement with the least amount of information?

- a. nominal
- b. ordinal
- c. interval
- d. ratio

Ans: A

Cognitive Domain: Knowledge

Answer Location: A Summary: How Levels of Measurement Differ

Difficulty Level: Easy

27. What is the level of measurement with the most available information?

- a. nominal
- b. ordinal

- c. interval
- d. ratio

Ans: D

Cognitive Domain: Knowledge

Answer Location: A Summary: How Levels of Measurement Differ

Difficulty Level: Easy

28. What level of measurement can be assigned an absolute zero?

- a. nominal
- b. ordinal
- c. interval
- d. ratio

Ans: D

Cognitive Domain: Knowledge

Answer Location: A Summary: How Levels of Measurement Differ

Difficulty Level: Easy

29. What level of measurement allows you to assign an order to the variable being measured?

- a. ratio
- b. ordinal
- c. interval
- d. all of these

Ans: D

Cognitive Domain: Knowledge

Answer Location: A Summary: How Levels of Measurement Differ

Difficulty Level: Easy

30. What level of measurement has high complexity and precision?

- a. nominal
- b. ordinal
- c. interval
- d. ratio

Ans: D

Cognitive Domain: Knowledge

Answer Location: Okay, So What's the Lesson Here?

Difficulty Level: Easy

31. What level of measurement has the lowest complexity and precision?

- a. nominal
- b. ordinal
- c. interval
- d. ratio

Ans: A

Cognitive Domain: Knowledge

Answer Location: Okay, So What's the Lesson Here?
Difficulty Level: Easy

32. If conducting a weight training course, what type of measurement would be optimal?
- a. nominal
 - b. ordinal
 - c. interval
 - d. ratio

Ans: D

Cognitive Domain: Knowledge

Answer Location: Okay, So What's the Lesson Here?

Difficulty Level: Easy

33. What level of measurement provides the highest likelihood of measuring the true outcome?
- a. nominal
 - b. ordinal
 - c. interval
 - d. ratio

Ans: D

Cognitive Domain: Knowledge

Answer Location: Okay, So What's the Lesson Here?

Difficulty Level: Easy

34. Ratio-level measurement would contain characteristics of what other levels?
- a. nominal
 - b. ordinal
 - c. interval
 - d. all of these

Ans: D

Cognitive Domain: Knowledge

Answer Location: Okay, So What's the Lesson Here?

Difficulty Level: Easy

35. Hair color is an example of what type of measurement?
- a. nominal
 - b. ordinal
 - c. interval
 - d. ratio

Ans: A

Cognitive Domain: Knowledge

Answer Location: Okay, So What's the Lesson Here?

Difficulty Level: Easy

36. Ordinal-level measurement would contain characteristics of what other level(s)?
- a. nominal

- b. ordinal
- c. ratio
- d. all of these

Ans: A

Cognitive Domain: Knowledge

Answer Location: Okay, So What's the Lesson Here?

Difficulty Level: Easy

37. Interval-level measurement would contain characteristics of what other level(s)?

- a. nominal
- b. ratio
- c. interval
- d. all of these

Ans: A

Cognitive Domain: Knowledge

Answer Location: Okay, So What's the Lesson Here?

Difficulty Level: Easy

38. The color of a person's hat would be what type of measurement?

- a. nominal
- b. ratio
- c. interval
- d. all of these

Ans: A

Cognitive Domain: Knowledge

Answer Location: Okay, So What's the Lesson Here?

Difficulty Level: Easy

39. The ranking of a person's favorite sports teams would be what type of data?

- a. nominal
- b. ratio
- c. interval
- d. ordinal

Ans: D

Cognitive Domain: Knowledge

Answer Location: Okay, So What's the Lesson Here?

Difficulty Level: Easy

40. If possible, what would be best level of data be to analyze characteristics?

- a. nominal
- b. ratio
- c. interval
- d. ordinal

Ans: D

Cognitive Domain: Knowledge

Answer Location: Okay, So What's the Lesson Here?
Difficulty Level: Easy

True/False

1. The color of a bird's egg would be an example of nominal data.

Ans: T

Cognitive Domain: Knowledge

Answer Location: The Nominal Level of Measurement

Difficulty Level: Easy

2. Nominal data allow for deep statistical comparison of differences.

Ans: F

Cognitive Domain: Knowledge

Answer Location: The Nominal Level of Measurement

Difficulty Level: Easy

3. Nominal data place things into categories.

Ans: T

Cognitive Domain: Knowledge

Answer Location: The Nominal Level of Measurement

Difficulty Level: Easy

4. All levels of measurement allow you to assign order to the variable being measured.

Ans: F

Cognitive Domain: Knowledge

Answer Location: A Summary: How Levels of Measurement Differ

Difficulty Level: Easy

5. Ratio-level data give you the least amount of information.

Ans: F

Cognitive Domain: Knowledge

Answer Location: A Summary: How Levels of Measurement Differ

Difficulty Level: Medium

6. Interval-level data have a true zero.

Ans: F

Cognitive Domain: Knowledge

Answer Location: A Summary: How Levels of Measurement Differ

Difficulty Level: Medium

7. Nominal-level data allow for only categorization of data.

Ans: T

Cognitive Domain: Knowledge

Answer Location: A Summary: How Levels of Measurement Differ

Difficulty Level: Easy

8. The color of a car is an example of ratio data.

Ans: F

Cognitive Domain: Comprehension

Answer Location: A Summary: How Levels of Measurement Differ

Difficulty Level: Easy

9. The speed of a runner in seconds would be ordinal data.

Ans: F

Cognitive Domain: Knowledge

Answer Location: A Summary: How Levels of Measurement Differ

Difficulty Level: Medium

10. The name of a basketball team would be nominal data.

Ans: T

Cognitive Domain: Knowledge

Answer Location: A Summary: How Levels of Measurement Differ

Difficulty Level: Medium

Essay

1. Give three examples of nominal data.

Ans: gender, color of a pen, team names

Cognitive Domain: Comprehension

Answer Location: The Nominal Level of Measurement

Difficulty Level: Easy

2. Give three examples of ratio level of measurement.

Ans: rainfall, height, weight

Cognitive Domain: Comprehension

Answer Location: The Ratio Level of Measurement

Difficulty Level: Medium

3. Order the levels of data from the most available information to the least.

Ans: ratio, interval, ordinal, nominal

Cognitive Domain: Analysis

Answer Location: A Summary: How Levels of Measurement Differ

Difficulty Level: Medium

4. Explain why a student ranked number one in the class based on ratio measurement may be misleading.

Ans: The student could still have a failing grade but be ranked one.

Cognitive Domain: Comprehension

Answer Location: A Summary: How Levels of Measurement Differ

Difficulty Level: Medium

5. What level(s) of measurement allow for an order to be established?

Ans: ratio, interval, nominal

Cognitive Domain: Comprehension

Answer Location: A Summary: How Levels of Measurement Differ

Difficulty Level: Medium