R University

Statistics Exam 2015-01-01 **Exam ID 00002**

Name: _____

Student ID: _____

Signature: _____

1. (a) [X] (b) [ ] (c) [ ] (d) [ ]
2. **ratio**
3. (a) [X] (b) [X] (c) [ ] (d) [X] (e) [ ] (f) [ ] (g) [ ] (h) [ ]
4. **ratio**
5. (a) [ ] (b) [ ] (c) [X] (d) [ ] (e) [ ] (f) [ ] (g) [ ] (h) [ ]
6. **ordinal**
7. (a) [ ] (b) [X] (c) [X] (d) [ ] (e) [ ] (f) [ ] (g) [X] (h) [ ]
8. **ratio**
9. (a) [ ] (b) [X] (c) [ ] (d) [ ] (e) [ ] (f) [ ] (g) [X] (h) [X]

1. **Problem**
   What is the level of measurement for a variable called eye_color with observations like blue, green, brown, ... ?

   (a) nominal
   (b) ordinal
   (c) interval
   (d) ratio

   Solution

   (a) True. nominal
   (b) False. ordinal
   (c) False. interval
   (d) False. ratio

2. **Problem**
   What is the level of measurement for variable = time in seconds with responses = numerical responses (e.g. 60, 72, 65, etc.)?

   Solution
   The level of measurement for variable = time in seconds with responses = numerical responses (e.g. 60, 72, 65, etc.) is ratio.

3. **Problem**
   Which of the following statements about nominal level of measurement is correct?

   (a) This level of measurement divides observations into groups.
   (b) It is categorical.
   (c) The measurement has a meaningful zero.
   (d) It is the lowest level of measurement.
   (e) This level of measurement is often used for summary scores on psychometric instruments.
   (f) It is the next to lowest level of measurement.
   (g) The distance between the units of measurement is unknown.
   (h) It is the next to highest level of measurement.

   Solution

   (a) True. This level of measurement divides observations into groups.
   (b) True. It is categorical.
   (c) False. The measurement has a meaningful zero.
   (d) True. It is the lowest level of measurement.
   (e) False. This level of measurement is often used for summary scores on psychometric instruments.
   (f) False. It is the next to lowest level of measurement.
   (g) False. The distance between the units of measurement is unknown.
   (h) False. It is the next to highest level of measurement.

4. **Problem**
   What is the level of measurement for variable = height in inches with responses = numerical responses with 2 decimal places (e.g. 60.00, 72.50, 65.25, etc.)?

   Solution
   The level of measurement for variable = height in inches with responses = numerical responses with 2 decimal places (e.g. 60.00, 72.50, 65.25, etc.) is ratio.

5. **Problem**
   Which of the following statements about interval level of measurement is correct?

   (a) This level of measurement divides observations into groups with order.
   (b) It is the highest level of measuremet.
   (c) This level of measurement is often used for summary scores on psychometric instruments.
   (d) This level of measurement divides observations into groups.
   (e) Meaningful ratios can be created with this level of measurement.
   (f) This level of measurement is often used for numerical measurements of tangible phenomena (e.g. time, height, weight, etc.)
   (g) It is the next to lowest level of measurement.
   (h) It is the lowest level of measurement.

   Solution

   (a) False. This level of measurement divides observations into groups with order.
   (b) False. It is the highest level of measuremet.
   (c) True. This level of measurement is often used for summary scores on psychometric instruments.
   (d) False. This level of measurement divides observations into groups.
   (e) False. Meaningful ratios can be created with this level of measurement.
   (f) False. This level of measurement is often used for numerical measurements of tangible phenomena (e.g. time, height, weight, etc.)
   (g) False. It is the next to lowest level of measurement.
   (h) False. It is the lowest level of measurement.

6. **Problem**
   What is the level of measurement for variable = order with responses = (first, second, third, fourth, greater than fourth)?

   Solution
   The level of measurement for variable = order with responses = (first, second, third, fourth, greater than fourth) is ordinal.

7. **Problem**
   Which of the following statements about ratio level of measurement is correct?

   (a) This level of measurement divides observations into groups with order.
   (b) This level of measurement is often used for numerical measurements of tangible phenomena (e.g. time, height, weight, etc.)
   (c) Meaningful ratios can be created with this level of measurement.
   (d) It is the next to lowest level of measurement.

(e) This level of measurement divides observations into groups.
(f) This level of measurement is often used for summary scores on psychometric instruments.
(g) It is continuous.
(h) It is the next to highest level of measurement.

Solution

(a) False. This level of measurement divides observations into groups with order.
(b) True. This level of measurement is often used for numerical measurements of tangible phenomena (e.g. time, height, weight, etc.)
(c) True. Meaningful ratios can be created with this level of measurement.
(d) False. It is the next to lowest level of measurement.
(e) False. This level of measurement divides observations into groups.
(f) False. This level of measurement is often used for summary scores on psychometric instruments.
(g) True. It is continuous.
(h) False. It is the next to highest level of measurement.

8. **Problem**
What is the level of measurement for variable = height in inches with responses = numerical responses with 2 decimal places (e.g. 60.00, 72.50, 65.25, etc.)?

Solution
The level of measurement for variable = height in inches with responses = numerical responses with 2 decimal places (e.g. 60.00, 72.50, 65.25, etc.) is ratio.

9. **Problem**
Which of the following statements about ordinal level of measurement is correct?

(a) It is the next to highest level of measurement.
(b) The distance between the units of measurement is unknown.
(c) It is the lowest level of measurement.
(d) It is the highest level of measuremet.
(e) There is a known distance between units of measurement.
(f) This level of measurement is often used for summary scores on psychometric instruments.
(g) This level of measurement divides observations into groups.
(h) It is the next to lowest level of measurement.

Solution

(a) False. It is the next to highest level of measurement.
(b) True. The distance between the units of measurement is unknown.
(c) False. It is the lowest level of measurement.
(d) False. It is the highest level of measuremet.
(e) False. There is a known distance between units of measurement.
(f) False. This level of measurement is often used for summary scores on psychometric instruments.
(g) True. This level of measurement divides observations into groups.
(h) True. It is the next to lowest level of measurement.