

SOLUTIONS to Data level of measurement 8-23-18

Time is a tricky idea when it comes to data classification.

August 23, 2018 at 8:14 am this is a late summer date because it is before Labor Day. I hope it is a cool day.

1. State the NOMINAL data in the passage about as it relates to some aspect of time
summer, Labor Day, cool

2. State the ORDINAL data in the passage about as it relates to some aspect of time
Late summer, before Labor Day

3. State the INTERVAL data in the passage about as it relates to some aspect of time
2018

4. State the RATIO data in the passage about as it relates to some aspect of time
August 23 8:14 am

It is unfortunate that in mathematics some of the words we use are very specific and meanings from English muddle the meanings in mathematics

5. Bob attends his night class from 6:30pm to 8:45pm on Wednesday in the Fall semester
 - a. Is 6:30pm to 8:45pm interval data or data that is stated in the form of an interval?
This is data stated in the form of an interval

 - b. How long is Bob's class? Is this data interval or ratio data?
Ratio

 - c. What part of the year is Bob's class? Is this interval, ratio, ordinal, or nominal data?
Ordinal =Fall

 - d. Can you determine exactly when the class starts in the year?
No

 - e. Can you determine when in the year, but not exactly when in the year?
Yes

 - f. You called Bob and asked him to be more specific when his Fall class started and he told you on September 8th. What kind of data did he tell you Nominal, Ordinal, Interval, or Ratio
Ratio

Time in a nut shell (Use nominal, ordinal, interval, and ratio to answer the following questions)

6. If you tell someone the time from a watch that data is **RATIO** because of the time 12:00a.m.
7. If you tell someone the date in terms of the Month and Day then that data is **RATIO** because of January 1
8. If you tell someone the year that you graduate then that data is **INTERVAL** because year 0 does not exist
9. You are expecting a delivery from Sears and they tell you that it will be delivered in the morning, then that data is **ORDINAL** because you can tell what part of the day, but you cannot distinguish how far from 12:00am the delivery will be made.

Use nominal, ordinal, interval, and ratio to classify the type of data measurement for the following statements

Give a short reason for your selection

10. Tommy drives a red car. This is **NOMINAL** data because **it describes an attribute of the car**
11. Timmy drives a 2018 pickup. This is **INTERVAL** data because **there is NO start of time in years that humans can prove and agree upon**
12. Jane drives the top ranked car in its class according to Consumer Reports

This is **ORDINAL** data because car is **ranked but the differences cannot be measured from given data**

13. Fred ate burger that weighed 2.1 pounds on vacation

This is **RATIO** data because **weight has a true zero and differences in weight are quantifiable and meaningful**

14. George gave his meal five stars on the comment card that uses a star rating system

This is **ORDINAL** data because stars can be used to rank, but the **differences between stars is not quantifiable in a meaningful way**

15. Your phone uses a four-digit pin to unlock your phone

This is **NOT RATIO** data because **this code is not measuring anything**

This could be **INTERVAL** data because **this code is not measuring anything but it could be placed in a list in an order with the other 10000 possibilities and those differences are measurable**

This could be **ORDINAL** data because **this code is not measuring anything but it could be placed in a list in an order with the other 10000 possibilities**

This could be **NOMINAL** data because **this code is not measuring anything it is describing your locked phone's key**

16. Paul is a wrestler and he tells you he is a heavyweight wrestler

This is **ORDINAL** data because **you can place the wrestler in a rank by weight, but you cannot quantify that weight (unless you are knowledgeable of the weight classes to know that even heavyweight has weight limits**

17. Nico is a wrestler and he tells you he wrestles the 195lb. weight class

This is **RATIO** data **because the weight classes are ranked and the differences between the classes is meaningful and quantifiable**