6. Identify the data set's level of measurement (nominal, ordinal, interval, ratio):

a) hair color of women on a high school tennis team N
b) numbers on the shirts of a girl's soccer team N
c) ages of students in a statistics class R
d) temperatures of 22 selected refrigerators I
e) number of milligrams of tar in 28 cigarettes R
f) number of pages in your statistics book R
g) marriage status of the faculty at the local community college N
h) list of 1247 social security numbers N
i) the ratings of a movie ranging from "poor" to "good" to "excellent" O
j) the final grades (A,B,C,D, and F) for students in a chemistry class O
k) the annual salaries for all teachers in Utah R
l) list of zip codes for Chicago N
m) the nationalities listed in a recent survey N
n) the amount of fat (in grams) in 44 cookies R
o) the data listed on the horizontal axis in the graph R

A data set can be classified according to the highest level of measurement that applies. The four levels of measurement, listed from lowest to highest are:

1. Nominal
2. Ordinal
3. Interval
4. Ratio

Levels of Measurement

1. Nominal: Categories, names, labels, or qualities. Cannot perform mathematical operations on this data.

Ex: type of car you drive, your major

2. Ordinal: Data can be arranged in order. You can say one data entry is greater than another.

Ex: TV ratings, condition of patient in hospital.

3. Interval: Data can be ordered and differences between 2 entries can be calculated. There is no inherent zero (a zero that means "none".)

Ex: Temperature, year of birth

4. Ratio: There is an inherent zero. Data can be ordered, differences can be found, and a ratio can be formed so you can say one data value is a multiple of another.

Ex. Height, weight, age

6. Identify the data set's level of measurement (nominal, ordinal, interval, ratio):
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   c) ages of students in a statistics class
   d) temperatures of 22 selected refrigerators
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   k) the annual salaries for all teachers in Utah
   l) list of zip codes for Chicago
   m) the nationalities listed in a recent survey
   n) the amount of fat (in grams) in 44 cookies
   o) the data listed on the horizontal axis in the graph

6. a) nominal
   b) nominal
   c) ratio
   d) interval
   e) ratio
   f) ratio
   g) nominal
   h) nominal
   I) ordinal
   j) ordinal
   k) ratio
   l) nominal
   m) nominal
   n) ratio
   o) ratio