Math 13 - Homework 1

Name: _____ **Class Number:** _____

1) In a statistical study what is the difference between an individual and a variable?:

2) Explain the meaning of:

    a. qualitative variable.
    b. quantitative variable.
    c. discrete, quantitative variable.
    d. continuous, quantitative variable.

3) Consider the following number assignments for category items describing electronic ways of expressing personal opinions: 1 = Twitter; 2 = email; 3 = text message; 4 = Facebook; 5 = blog. Are these numerical assignments at the ordinal data level or higher?

4) Consider these number assignments for category items describing usefulness of customer service: 1 = not hepful; 2 = somewhat helpful; 3 = very helpful; 4 = extremely helpful. Are these numerical assignments at the ordinal data level? Explain.

5) A state survey asked 1500 residents in California which fast-food meal (breakfast, lunch, dinner, snack) they ordered.

    a. Identify the variable.
    b. Is the variable quantitative or qualitative?

6) Human beings have one of four blood types: A, B, AB, or O. What kind of data do you receive when you are told your blood type?

7) The U.S. Census Bureau collects data on household size and publishes the information in Current Population Reports. What kind of data is the number of people in your household?

8) Say whether the property is quantitative or qualitative.

    a. A person's height.
    b. A person's sex.
    c. A person's weight.
    d. A person's eye color.
    e. A person's marital status.
    f. A person's level of education.
    g. A person's years of education.

9) Identify the measurement level of the following variables

a. Length of time to complete an exam.
b. Time of first class.
c. Major field of study.
d. Course evaluation: poor, acceptable, good.
e. Score on last exam (based on 100 possible points).
f. Overall grade (letters: A, B, C, D, F).
g. Age.
h. Name of student.
i. College year-grade: freshman, sophomore, junior, senior.
j. Weight (in ounces).
k. Height (in inches).
l. Sex.
m. Home Address.
n. Telephone number.
o. Birth date: (e.g. 10/21/1995)
p. Number of siblings.

10) Classify the measurements associated with fishing according to level: nominal, ordinal, interval, or ratio.

a. Species of fish caught: perch, nass, pike, trout.
b. Cost of rod and reel.
c. Guidebook rating of fishing area: poor, fair, good.
d. Number of fish caught.
e. Temperature of water.

11) Classify the measurements associated with a robotics company according to level: nominal, ordinal, interval, or ratio.

a. Salesperson's performance: below average, average, above average.
b. Price of company's stock.
c. Names of new products.
d. Temperature (in Fahrenheit degrees) in conference room.
e. Gross income for each of the past 5 years.
f. Color of product packaging.