

Stat 2 - Homework 1

Name: _____ SID: _____ GSI: _____

1) 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?

2) 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?

3) A national survey asked 1261 U.S. adult fast-food customers which meal (breakfast, lunch, dinner, snack) they ordered.

- a. Identify the variable.
- b. Is this variable quantitative or qualitative.

4) A research study used a random sample of 35 new cars to estimate the average miles per gallon (mpg) for all new cars.

- a. Identify the variable.
- b. Is this variable quantitative or qualitative.

5) Identify the type of variable (qualitative or quantitative) for the list of questions from a survey applied to college students in Stat 2.

- a. Name of student.
- b. Birth date: (e.g. 10/21/1995)
- c. Home Address.
- d. Telephone number.
- e. Email address
- f. Age (in years).
- g. Sex.
- h. Number of siblings.
- i. Major field of study.
- j. College year-grade: freshman, sophomore, junior, senior.
- k. GPA
- l. Time of lab discussion.
- m. Course evaluation: poor, acceptable, good.
- n. Score on midterm test (based on 100 possible points).
- o. Overall grade: A, B, C, D, F.
- p. Length of time to complete Stat 2 final test.

6) Consider a variable with numeric values describing electronic ways of expressing personal opinions: 1 = Twitter; 2 = email; 3 = text message; 4 = Facebook; 5 = blog. Is this a quantitative or a qualitative variable? Explain.

7) Say whether the property is quantitative or qualitative. If it is qualitative, what would you measure to make it quantitative.

- a. An athlete's height and weight.
- b. What student ID number a UC Berkeley student has.
- c. The price of an grocery item.
- d. Whether someone is living in poverty.
- e. Whether a restaurant has good food.

8) The networks for the top 20 television shows, as determined by a Ratings firm for the last week of October in 2008, are shown in the following list:

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[1] "CBS" "ABC" "CBS" "ABC" "ABC" "Fox" "CBS" "CBS" "Fox" "CBS" "ABC"
[12] "CBS" "CBS" "CBS" "Fox" "Fox" "Fox" "CBS" "Fox" "ABC"
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Make a frequency table (showing the counts and proportions), and display a bar chart.