

Chapter 1 Homework

Name: _____

1. Identify each of the following as a variable or a constant. Explain the reasons for your choices.

- a. The number of hours in a day.
- b. Peoples attitudes toward abortion
- c. The country of birth of presidents of the United States.
- d. The value of a number divided by itself.
- e. The total number of points scored in a football game.
- f. The number of days in the twelve months in a year.

2. Identify each of the following as a qualitative or a quantitative variable:

- | | | |
|-----------|-------------|--------------|
| a. weight | b. religion | c. income |
| d. age | e. gender | f. eye color |

3. Identify the independent variable and dependent variable in the following scenario and then indicate whether each is a quantitative variable or a qualitative variable: A new antidepressant drug has been shown to have positive results on treating depression. To closely examine the drug's effectiveness on reducing an individual's depression, Dr. Leary administers different dosages of the drug (0-mg, 10-mg, 20-mg, 30-mg, 40-mg, and 50-mg) to six different groups and then measures the amount of brain activity in each individual (an indirect measure of depression).

3a. independent variable:

3b. Dependent variable:

4. Read the following scenario and answer the questions: Dr. Evil has given up evil to start a potato chip company that will distribute potato chips to undergraduates in the United States. Dr. Evil wants to know what potato chip flavor undergraduates like best. He asks 100 undergraduates to taste each of four potato chip flavors (1) BBQ (2) Plain (3) Ranch and (4) Super-Evil. Each student gives a rating on a scale of 1 to 10 on how much they liked each flavor chip, with 10 indicating that they really liked the flavor. The average ratings for each of the four chip flavors are 4.5 for BBQ, 6.7 for Plain, 2.5 for Ranch and 9.5 for Super-Evil.

4a. The "population" in this scenario is _____.

4b. The "sample" in this scenario is _____.

4c. "Fred" rates the Super-Evil Flavored chips a 10. This rating is a _____.

4d. The average ratings in the scenario is(are) a _____.