

Name: _____

Date: _____

Elementary Statistics

Period: _____

Homework: 1.3 (textbook p.21-23 #1,2,5,6,9,12,14,16,17,19,21-24,29,33,35)

1. What is a parameter? What is a statistic?

2. How do quantitative and qualitative data differ?

3. For questions a-d, determine if the given value is a statistic or a parameter.
 - a. In a AAA Foundation for Traffic Safety survey, 21% of the respondents said that they recently texted or emailed while driving.

 - b. There are 50 capitols in the United States.

 - c. The Mean IQ score for subjects taking the Wechsler Adult Intelligence Scale IQ test is 100.

 - d. In a random sample of households, it was found that 47% of the sampled households had high-definition televisions.

4. For questions a-d, determine if the given values are from a discrete or continuous data set.
 - a. The Honda Civic has 4 cylinders.

 - b. George Washington was 188 cm tall.

 - c. Currently, the House of Representatives has 435 members.

 - d. From Data Set 16 in Appendix B, we see that an earthquake had a measurement of 0.70 on the Richter scale.

5. For questions 1-d, determine which of the four levels of measurement is most appropriate (nominal, ordinal, interval or ratio)
- a. Colors of M&M's (red, orange, yellow, green, blue, brown) listed in Data Set 20 in Appendix B
 - b. Depths in km of earthquakes listed in Data set 16 in Appendix B
 - c. Years in which U.S. presidents were inaugurated
 - d. The movie Avatar was given a rating of 4 stars on a scale of 5 stars
6. In a pre-election survey of likely voters, political parties of respondents are identified as 1 for a Democrat, 2 for a Republican, 3 for an Independent, and 4 for anything else. The average (mean) is calculated for 850 respondents and the result is 1.7. Identify the level of measurement (nominal, ordinal, interval, or ratio) and explain what is wrong with the calculation.
7. For questions a-c, categorize the nature of the data using one of these 3 descriptions:
- 1. Discrete because the number of possible values is finite
 - 2. Discrete because the number of possible values is infinite and countable
 - 3. Continuous because the number of possible values is infinite and not countable
- a. Exact braking distances of cars, measured on a scale from 100 ft to 200 ft
 - b. The numbers of students now in statistics classes
 - c. The number of attempts required to roll a single die and get an outcome of 7
8. In the Born Loser cartoon strip by Art Sansom, Brutus expresses joy over an increase in temperature from 1° to 2° . When asked what is so good about 2° , he answers that "it's twice as warm as this morning." Explain why Brutus is wrong.