Math 153 - Quiz 1

Name __key__

January 28, 2016

Score _____

Show all work to receive full credit. Supply explanations when necessary.

1. (2 points) Manuel is pretty tall. In describing him, Sarah claimed that he was around 6 feet tall.

    (a) Is Sarah's number probably accurate, precise, both, or neither?

    SHE IS PROBABLY ACCURATE, BUT NOT AT ALL PRECISE.

    (b) What if Sarah claimed that Manuel is 6.231146758954 feet tall? Is she accurate, precise, both, or neither?

    SHE IS VERY PRECISE, BUT IT IS NOT LIKELY THAT HER MEASUREMENT IS ACCURATE.

2. (2 points) Determine whether each value comes from a discrete collection or a continuous collection of data.
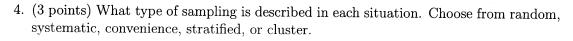
    (a) Ted caught a fish that was 37 inches long.

    MEASUREMENT → CONTINUOUS

    (b) There are 37 students enrolled in the statistics course.

    A COUNT ⇒ DISCRETE

3. (1 point) Katrina is interested in knowing how new U.S. citizens feel about the citizenship process. She asks for the opinions of a few of the people from her town who just became citizens. Identify the population and the sample.
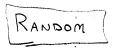
    POPULATION: ALL NEW U.S. CITIZENS

    SAMPLE: THOSE NEW CITIZENS FROM HER TOWN WHO SHE ASKED

4. (3 points) What type of sampling is described in each situation. Choose from random, systematic, convenience, stratified, or cluster.

   (a) A book is divided into chapters. Four chapters are selected at random and all the words in each of those chapters are counted.

   All of some $\Rightarrow$ CLUSTER

   (b) Each of six students is assigned a number (1 through 6). A die is rolled in order to select to a particular student.

   RANDOM

   (c) Every fourth person on the class roster is selected to complete a survey.

   SYSTEMATIC

5. (2 points) Determine the level of measurement. Choose from nominal, ordinal, interval, or ratio.

   (a) Ranks of enlisted women in the U.S. Marine Corps

   ORDINAL

   (b) Weights of cookies

   RATIO