Math 153 - Quiz 2

January 26, 2017

Name key

Score _____

Show all work to receive full credit. Supply explanations when necessary. YOU MUST WORK INDIVIDUALLY.

1. (2 points) A researcher claims that U.S adult women have a mean height of 63.8 in. In a random sample of 35 women, the researcher found a mean height of 64.1 in.

   (a) Is 63.8 a parameter or statistic? Is 64.1 a parameter or a statistic?

   IT DESCRIBES THE POPULATION.

   IT DESCRIBES A SAMPLE.

   (b) Is the difference in the means an example of sampling error or nonsampling error?

   ERROR BY CHANCE DUE TO RANDOMNESS.

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

   (a) A survey asks you to rate your satisfaction on a scale of 1 to 6.

   ORDINAL

   (b) Driver's license numbers

   NOMINAL

   (c) Voltages are measured in a circuit.

   RATIO

   (d) Years in which new U. S. presidents took office

   INTERVAL

3. (6 points) Identify the type of sampling. Choose from random, systematic, convenience, stratified, or cluster.

(a) A scientist studying soil microbes took soil samples every 5 meters along a line.

Systematic (every 5)

(b) A reporter interviewed the neighbors of a person who was the focus of a story.

Convenience

(c) Research candidates are separated into groups depending on age. Two groups are chosen at random. Participants in the study are determined by selecting all members of the two chosen groups.

Cluster (All of some)

(d) Students are each assigned a unique 3-digit code. Then a computer is used to randomly select 10 of the codes.

Random

(e) ABC News organized an exit poll in which a few specific polling places were randomly selected and all voters at those polling places were surveyed as they left the premises.

Cluster (All of some)

(f) A sample of words was obtained by selecting 10 words at random from each page of a book.

Stratified (Some of All)