STAT 614 Classwork Chapter 2

1. A market research company wishes to find out which of two Internet search engines the population of students at a university prefers to use: Google or MSN Search. A random sample of students is selected, and each one is asked to search for a certain subject using Google and then MSN, or vice versa. The order of the two searches was determined at random. They then indicate which Internet search engine they prefer. What type of study is this?
A) An observational study.
B) An experiment, but not a double-blind experiment.
C) A double-blind experiment.
D) None of the above.
Answer:
Topic: Introduction

2. A study was conducted with the object of determining the effect on blood pressure and cholesterol levels in women over the age of 60 of two different strength-training programs, one involving the use of a balance ball and the other using stationary exercise equipment. Eighty women over the age of 60 were identified and randomly divided into two equal-sized experimental groups. Each member of the two groups was trained and allowed to follow the prescribed routine for eight weeks. The subjects were aware of the purpose of the study but not that there were two different treatment groups involved. The cholesterol levels and blood pressure for subjects were measured at the start and at the end of the eight weeks. The experimenter and the medical technician were not told to which group any of the subjects were assigned. This is an example of an attempt to conduct
A) an experiment without randomization
B) an experiment that is not double blinded
C) an observational study
D) a double-blind randomized experiment.
E) none of the above.
Answer:

3.

David A. Miller owns a small advertising business. He has nine employees. The names of the employees are given below:

1. Becker	4. Ito	7. Taylor
2. Brown	5. Kiefer	8. Walt
3. Chasten	6. Spitzer	9. Weiss

Use the list of random digits below to select a simple random sample of three names from the list of employees. Start at the beginning of the list and use the numerical labels attached to the names.

11793 20495 05907 11384 44982 20751 27498 12009 45287 71753

The simple random sample consists of

A)   117.
B)   Becker, then Becker again, then Taylor.
C)   Becker, Taylor, Weiss.
D)   Chasten, Kiefer, Taylor.

Answer:

Topic: 3.2 Sampling Design