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Homework #1

42.A. The population is the collection of clients that work out in the fitness center.

B. The sample is the clients that were included in the study of the amount of time spent working out each week.

C. The parameter is the mean of time spent working out from the entire population of clients.

D. The statistic is the mean of time spent working out from clients in the sample.

E. The variable is the certain amount of time each client spends working out

F. The data for three clients in the sample could be 45 minutes, 1 hour, and 2 hours 15 minutes.

44. A. The population is the patients that have experienced heart attacks.

B. The sample is the cardiologist's patients that experienced heart attacks.

C. The parameter is the mean of the entire population of patients that had heart attacks.

D. The statistic is the mean sample of the cardiologist's patients that had heart attacks.

E. The variable is the amount of time it took patients to get better after the heart attack.

F. The data for three clients in the sample could be 14 days, 16 days, and 6 days.

46. A. The population is all of the voters in the politician's district.

B. The sample is a smaller group taken from the entire population of voters in his district.

C. The parameter is those from the entire population that believe he is doing a good job.

D. The statistic is taken from the sample and represents those that believe he is doing a good job.

E. The variable is those that might not believe he is doing a good job in his district.

F. The data is those that do believe he is doing a job and those that do not believe he is doing a good job. There are only two options

51. A. Variable

52. A. Parameter

54. Body fat percentage is quantitative continuous and an example of this would be 13.4%.

56. Time in line to buy groceries would be quantitative continuous and an example is 3 minutes 30 seconds.

58. A most watched television show is qualitative and an example is Seinfeld.

60. The distance to the closest movie theater is quantitative discrete and an example is it being 10 miles away.

66. The preferred method to obtain the mean number of statistics students per class in California would be stratified sampling. In order to do that different areas of California would be broken up into strata. From there the strata would be randomly selected to determine the mean of students in statistics classes.

76. A. The sample for the opinion poll only represented a small portion of the United States particularly the upper class. This took place during the Great Depression so most Americans did not have access to those luxuries. During that time there were approximately 128 million people and they only reached out to 10 million.

B. The low response rate allows for a larger bias to appear in the sample.

C. A sampling error has taken place because they are receiving a bias response with their survey since most people did not mail it back.

D. Quota sampling is an example of stratified sampling.

90. A. $100\% - 96\% = 4\%$. So 4% of students do not have access to a computer at home.

B. 13% of students live 16 miles from the campus.

C. No they would not be the same because these statistics are unique to LBCC. Great Basin College will vary due to the student population, location, and different needs of their students compared to LBCC.