STUDY GUIDE FOR TEST 1 OF MTH 114

Test 1 is scheduled for Thursday, February 10. It will cover the chapters 13 and 14 from your book.

Be familiar with the following terms and symbols.

1. population
2. sample
3. parameter
4. statistic
5. selection bias
6. sampling error
7. sampling variability
8. random sampling
9. quota sampling
10. stratified sampling
11. controlled study
12. treatment group
13. control group
14. placebo
15. blind study
16. double blind study
17. frequency
18. relative frequency
19. bar graph
20. pie chart
21. qualitative data
22. quantitative data
23. discrete variable
24. continuous variable
25. class intervals
26. histogram
27. average or mean
28. median
29. percentile
30. first, second, and third quartile
31. five-number summary
The following is a list of things you should know and be able to do for the test. It is not necessarily complete.

1. Tell the meaning of the terms given above, or describe the difference between terms.
2. Determine whether a given quantity represents a parameter or a statistic.
3. Decide whether a sample has been selected using random, quota, or stratified sampling.
4. Find problems with the construction of a given sample that can lead to sample bias.
5. List the relative merits of the different methods of sample selection.
6. Determine whether a given study is a controlled study, blind, or double blind.
7. Draw a bar graph of a given set of data.
8. Draw a pie chart of a given set of data.
9. Draw conclusions about a data set from its bar graph or pie chart.
10. Construct a frequency or relative frequency table for a given set of data.
11. Find the mean of a given set of data.
12. Find the median of a given set of data.
13. Determine the percentile of a given datum.
14. Tell whether a data set has unusually small or large values by comparing the mean and median of the data.
15. Determine which datum is a given percentile of a given set of data.
16. Find the five-number summary of a given set of data.
17. Draw a box plot of a given set of data.
18. Draw conclusions about a data set from its box plot.
19. Find the interquartile range of a given set of data.
20. Find the standard deviation of a given set of data.
21. Determine which of two data sets has more variation by comparing their standard deviations.