Time Frame: 50 minutes

Subject Matter: Test in Confidence of Interval TELL ME

Objective: TSWBAT solve the problems in the test with at least 90% accuracy.

Standards: DA – 4.9

 Materials: Calculator and Test papers

SHOW ME

Presentation of Information

Use these two processes when $n\geq 30.$ Use these two processes when $n\leq 30.$

Test in Confidence of Interval

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: Feb. 18, 2011

Solve the following.

1. A study of 36 members of the Central Park Walkers showed that they walk at an average of 2.6 miles per hour. The sample standard deviation is 0.4. Find the 95% confidence interval for the mean for all walkers.
2. In a survey of 1004 individuals, 442 felt that President George W. Bush spent too much time away from Washington. Find the 95% confidence interval for the true population proportion.
3. A U.S. Travel Data Center survey reported that Americans stayed an average of 7.5 nights when they went on vacation. The sample size was 1500. Find 95% confidence interval of the true mean. Assume the standard deviation was 0.8 night.
4. A sample of 12 funeral homes in Toledo, Ohio, found these costs for cremation (in dollars).

1320 1052 1090 1285 1570 995 1150

1585 820 1195 1160 590

 Find the 95% confidence interval for the population mean.

1. A U.S. Travel Data Center’s survey of 1500 adults found that 42% of respondents stated they favor historical sites as vacations. Find the 95% confidence interval of the true proportion off all adults who favor visiting historical sites as vacations.
2. In a study of 200 accidents that required treatment in an emergency room, 40% occurred at home. Find the 90% confidence interval of the rue proportion of accidents that occur at home.
3. A sample of 17 states had these cigarette taxes (in cents):

112 120 98 55 71 35 99 124 64

150 150 55 100 132 20 70 93

Find the 98% confidence of interval for the cigarette tax in all 50 states.

*Source: Federation of Tax Administrators.*

1. The number of grams of carbohydrates in a 12 – ounce serving of a regular soft drink is listed her for a random sample of sodas. Estimate the mean number of carbohydrates in all brands of soda with 95% confidence.

48 37 52 40 43 46 41 38

41 45 45 33 35 52 45 41

30 34 46 40

*Source: The Doctor’s Pocket Calorie, Fat, and Carbohydrate Counter*

1. A random sample of the number of farms (in thousands) in various states is found below. Estimate the mean number of farms per state with 90% confidence interval.

47 95 54 33 64 4 8 57 9 80

8 90 3 49 4 44 79 80 48 16

68 7 15 21 52 6 78 109 40 50

29

*Source: N.Y. Times Almanac*

1. A sample of six adult elephants had an average weight of 12200 pounds, with a sample standard deviation of 200 pounds. Find the 95% confidence interval of the true mean.