

King Fahd University of Petroleum & Minerals
Department of Mathematics & Statistics
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Quiz #5

Name:

ID:

Serial:

Q 1: A survey was instituted to estimate the mean salary of middle level bank executive. A random sample of 15 executive yielded the following yearly salaries (in units of \$1000)

88 121 77 39 52 102 95 78 69 82 80 84 72 115 106

- a) Calculate and interpret a 95% confidence interval for the mean salary of middle level bank executive.
- b) Test the hypothesis that the mean salary of middle level bank executive is more than 80.

Q2: A fuel company claims that one-fifth of the homes in a certain city are heated by oil. In a random sample of 1000 homes in this city, it is found that 136 are heated by oil? Do we have reason to believe that proportion of homes heated by oil is less than one-fifth?