1. We wish to determine whether special training has an effect on the variability of IQ scores, as compared with the norm, for which ϭ² = 225. We tested 30 randomly sampled children with the sample variance 120.5. With α = 0.05, do the hypothesis test and construct the 95% confidence interval.
2. Weight losses of 12 persons in an experimental one week diet program are given below:

|  |  |  |  |
| --- | --- | --- | --- |
| Weight loss in pound | | | |
| 3.0 | 1.4 | 0.2 | -1.2 |
| 5.3 | 1.7 | 3.7 | 5.9 |
| 0.2 | 3.6 | 3.7 | 2.0 |

Do these results indicate that a mean weight loss of one or more than 1 Ib was achieved?

Use α = 0.01

1. A public opinion poll shows that a sample of 150 voters, 79 preferred candidate X. If X can be confident of winning, she can save campaign funds by reducing TV commercials. Given the results of the survey should X conclude that she has a majority voters?