* + - 1. A random sample of 4000 U.S. citizens yielded 2250 who are in favor of gun control legislation. Estimate the true proportion of all Americans who are in favor of gun control legislation using a 99% confidence interval.
      2. A random sample of 50 employees of a large company was asked the question, “Do you participate in the company’s stock purchase plan?” The answers are shown below.

yes no yes yes no no yes yes no yes

no yes yes yes no yes yes no yes yes

yes yes yes no yes yes no yes yes yes

yes no yes yes yes yes yes yes no yes

no yes yes no yes yes yes yes yes yes

Use a 90% confidence interval to estimate the proportion of employees who participate in the company’s stock purchase plan.

* + - 1. Sales of a new line of athletic footwear are crucial to the success of a company. The company wishes to estimate the average weekly sales of the new footwear to within $200 with 95% reliability. The initial sales indicate that the standard deviation of the weekly sales figures is approximately $1500. How many weeks of data must be sampled for the company to get the information it desires?
      2. A university dean is interested in determining the proportion of students who receive some sort of financial aid. Rather than examine the records for all students, the dean randomly selects 200 students and finds that 118 of them are receiving financial aid. If the dean wanted to estimate the proportion of all students receiving financial aid to within 5% with 99% reliability, how many students would need to be sampled?