

Practice Set 11 Sampling and the Sampling Distribution of the Means

- I. Darin's new company, Future Horizons Corporation, manufactures a component for computer chips. Darin wants to know the average weight of 1,000 recently produced components. A sample of 36 had a mean weight of 30.025 milligrams and a standard deviation of .065 milligrams. Calculate the 98% confidence interval for the population mean weight of these components.

Raw Data For People Using Statistics Software											
29.89	29.96	29.97	30.05	29.97	29.98	29.98	30.06	30.04	30.07	30.05	30.06
29.97	29.95	30.05	30.05	29.95	30.09	29.95	29.99	30.06	30.06	29.89	30.09
29.99	29.99	29.98	30.02	30.08	30.01	30.09	30.06	30.08	30.12	30.16	30.15

- II. Calculate the 95% confidence interval using problem I information.

- III. What can Darin do to make this interval smaller?