

**TI-83/84 Plus:** Press the **MATH** key. Select **PRB**, then select the 5th menu item, **randInt**(, and enter 1, 100, 200; then press **ENTER**. Press **STO>** and **L1** to store the data in list L1. After recording the number of defects, repeat this procedure until results for 20 days have been simulated.

**StatCrunch:** Open StatCrunch, click on **Data**, select the menu item of **Simulate data**, then select **Discrete Uniform**. In the dialog box, enter 200 for the number of rows, enter 20 for the number of columns, enter 1 for the minimum, and enter 100 for the maximum. Click on **Simulate** to obtain the results.

## from data TO DECISION

**Critical Thinking: Are the axial loads within statistical control? Is the process of manufacturing cans proceeding as it should?**

Exercises 5–8 in Section 14-2 used process data from a New York company that manufactures 0.0109-in.-thick aluminum cans for a major beverage supplier. Refer to Data Set 22 in Appendix B and conduct an analysis of the process data for the cans that

are 0.0111 in. thick. The values in the data set are the measured axial loads of cans, and the top lids are pressed into place with pressures that vary between 158 lb and 165 lb.

### Analyzing the Results

Based on the given process data, should the company take any corrective action? Write a report summarizing your

conclusions. Address not only the issue of statistical stability but also the ability of the cans to withstand the pressures applied when the top lids are pressed into place. Also compare the behavior of the 0.0111-in. cans to the behavior of the 0.0109-in. cans, and recommend which thickness should be used.