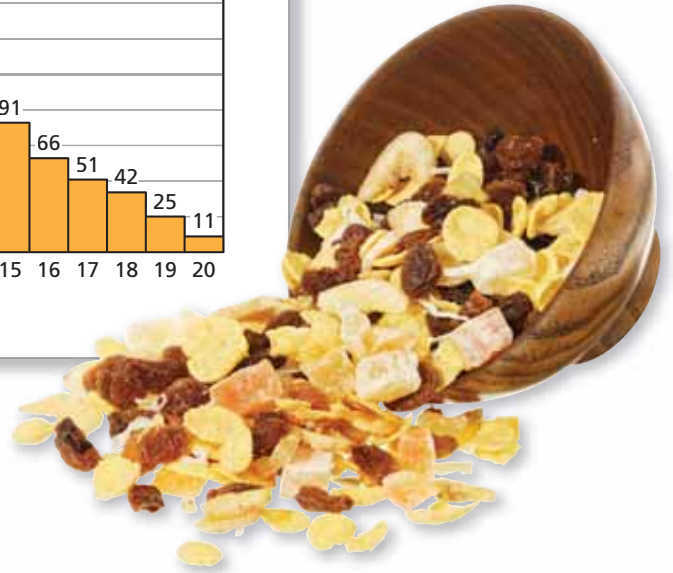
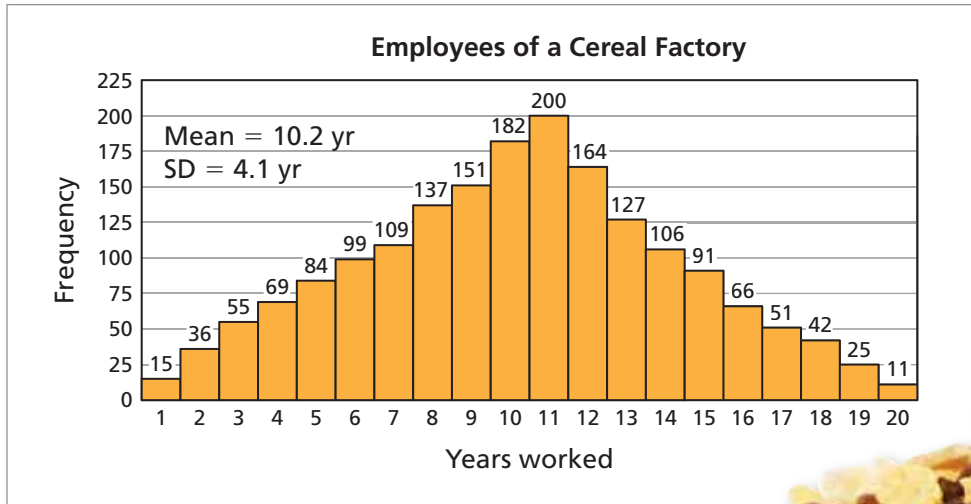
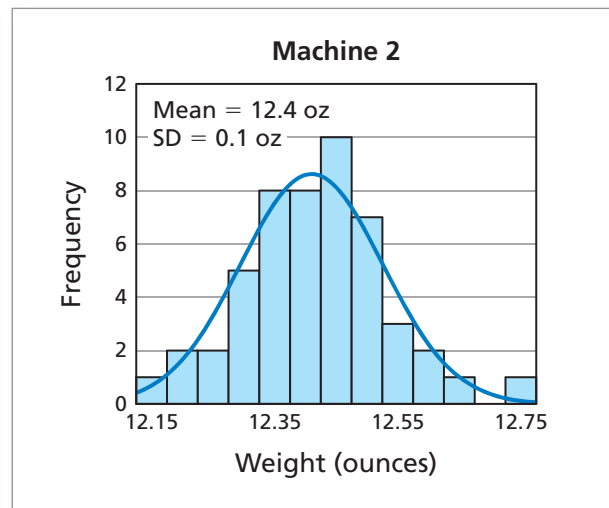
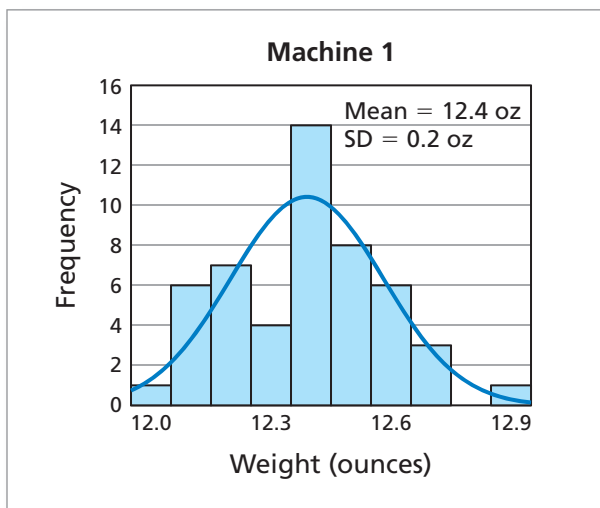


Factory Employees The graph shows the distribution of the years worked by the 1820 employees of a cereal factory. In Exercises 7–10, use the histogram. (See Example 3.)



7. Does this data set have a normal distribution? Explain your reasoning.
8. What percent of the employees lie within 1 standard deviation of the mean?
9. What percent of the employees lie within 2 standard deviations of the mean?
10. Compare the percents in Exercises 8 and 9 with the percents given by the normal distribution.

Cereal The graphs show the distributions of samples of weights of boxes of cereal filled by two machines. In Exercises 11 and 12, use the histograms. (See Example 4.)



11. What is the significance of the smaller standard deviation for machine 2?
12. The boxes must weigh at least 12.2 ounces. Estimate the percent of boxes from each machine that pass the weight requirement.