**Case Study: The Chips Ahoy! 1,000 Chips Challenge**

1. Review the case study on page 359 of the textbook.
2. The data on the number of chocolate chips per bag for 42 bags of Chips Ahoy! cookies were obtained by the students in an introductory statistics class at the United States Air Force Academy in response to the Chips Ahoy! 1,000 Chips Challenge sponsored by Nabisco, the makers of Chips Ahoy! Use the data collected by the students to answer the following questions and to conduct the analyses required in each part.
   1. Obtain and interpret a point estimate for the mean number of chocolate chips per bag for all bags of Chips Ahoy! cookies. (*Note:* The sum of the data is 52,986.)
   2. Construct and interpret a normal probability plot, boxplot, and histogram of the data.
   3. Use the graphs in part (b) to identify outliers, if any.
   4. Is it reasonable to use the one-mean *t*-interval procedure to obtain a confidence interval for the mean number of chocolate chips per bag for all bags of Chips Ahoy! cookies? Explain your answer.
   5. Determine a 95% confidence interval for the mean number of chips per bag for all bags of Chips Ahoy! cookies, and interpret your result in words. (*Note:* x-macron= 1261.6; *s* = 117.6.)