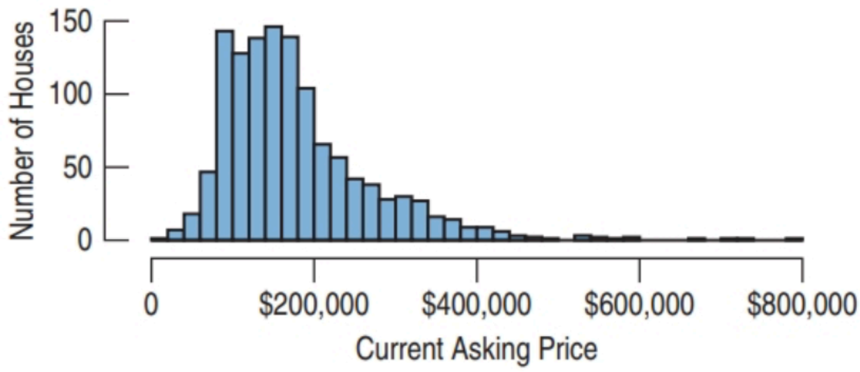
Exercise 11-48 pp. 392–393. Real estate crash? (Adapted to find 95% confidence interval.) After the sub-prime crisis of late 2007, real estate prices fell almost everywhere in the U.S. In 2006–2007 before the crisis, the average selling price of homes in a region in upstate New York was \$ 191 300. A real estate agency wants to know how much the prices have fallen since then. They collect a sample of 1231 homes in the region in mid-2013 and find the average asking price to be \$ 178 613.50 with a standard deviation of \$ 92 701.56. You have been retained by the real estate agency to report on the current situation.

(a) Discuss the assumptions and conditions for finding a confidence interval for the average asking price of all homes in the region in 2013. Here is a plot that may help you decide what to do.



(b) Find the 95% confidence interval for the average asking price of all homes in the region in 2013. Show your work. Then check with the TI-84.

(c) How would you report the 95% confidence interval to the real estate agency?

(d) Explain what "95% confident" *exactly* means. Add a sketch. *Hint:* "If 100 researchers would. . . "