

1. A lumber company has claimed that the standard deviation for the lengths of their 8 foot boards is 0.2 inches or less. In a random sample of 36 eight-foot boards, the mean is 7.89 feet and the standard deviation is 0.32.
 - a. State the null and the alternative hypotheses.
 - b. At $\alpha = .05$, find the critical value(s).
 - c. Are the assumptions of the test satisfied?
 - d. Compute the test statistic.
 - e. What is the conclusion of the test statistic?

2. We are interested in determining whether or not the variances of the daily sales of two small grocery stores we own are equal. Samples from of sales at each store are summarized below.

	Store	Store
	A	B
Sample Size	32	35
Mean	25542	28145
Standard deviation	146	105

- a. State the null and the alternative hypotheses.
- b. At $\alpha = .05$, find the critical value(s).
- c. Are the assumptions of the test satisfied?
- d. Compute the test statistic.
- e. What is the conclusion of the test statistic?