Homework #7- Chapter 9 One Sample Hypothesis Testing (Montgomery & Runger, 5ed)

Reading Assignment: Pages 283 - 286 and Pages 292 - 314 (p-value See Glossary page 758)

Problems:
Pages 303 - 305	Example 9-2
Pages 309 - 310	#9-41 a; 9-43 a,b; #9-45 a,b; 9-47 a,b
Pages 313 - 314	Example 9-6
Pages 318 - 319	#9-59 a; 9-61 a; 9-63 a; 9-67
Pages 325 - 326	Example 9-10

Additional Problems
1. Test the margarine producer's claim that the average polyunsaturated fat content is 11.50 ounces per pound. Forty-nine one-pound cartons of margarine were analyzed to determine the polyunsaturated fat content. The sample average was 11.65 ounces, with standard deviation of 0.39 ounces.
Use a 5% Level of Significance. Does the sample data support the producer's claim that the average fat content is 11.50 ounces? Determine the p-value.

2. A company advertises that their incandescent light bulbs will operate on average 1600 hours.
A consumer group claims that the light bulbs do not meet the company's advertisement. An independent test agency tested 100 bulbs and found the average operating time to be 1570 hours with a standard deviation of 120 hours. Does the sample data support or refute the consumer group's claim that the bulbs do not meet the company's advertisements? Use a 5% Level of Significance. Determine the p-value.

3. The mean body temperature of healthy adults is said to average 98.6 degrees Fahrenheit.
A random sample of 25 reportedly healthy adult temperatures were found to average 98.2 with a standard deviation 0.69 degrees Fahrenheit. What can be said about the common statement for adult body temperature?
Use a 5% Level of Significance. Determine the p-value.