The file DarkChocolate contains the cost per ounce ($) for a sample of 14 dark chocolate bars.

0.68 0.72 0.92 1.14 1.42 0.94 0.77 0.57 1.51 0.57 0.55 0.86 1.41

0.90

a.) Compute the mean median and mode.

b.) Compute the variance, standard deviation, range, coefficient of variation, and Z score. Are the any outliers? Explain.

c.) Are the data skewed? If so, how?

d.) Based of the results of (a) and (c), what conclusions can be reached concerning the cost of dark chocolate bars?

One of the major measures of the quality of service provided by an organization is the speed with which it responds to customer complaints. A large family-held department store selling furniture and flooring, including carpet, had undergone a major expansion in the past several years. In particular, the flooring department had expanded from 2 installion crews to an installion supervisor, a measurser, and 15 installation crews. The business objective of the company was to reduce the time between when the complaint is received and when it is resolved. During a recent year, the company got 50 complaints concerning carpet installions. The data of the 50 complaints organized in Furniture represent the number of days between the receipt of a complaint and the resolution of the complaint:

54 5 35 137 27 152 2 123 81 74 27 11 19 126 110 110 29 61 35 94 31 26 5 12 4 165 32 29 28 29 26 25 1 14 13 13 10 5 27 4 52 30 22 36 26 20 23 33 68

a.) Compute the mean, median, first quartile, and third quartile.

b.) Compute the range, interquartile range, variance, standard deviation, and coefficient of variation.

c.) Construct a boxplot. Are the data skewed? If so, how?

d.) On the basis of the results of (a) through (c), if you had to tell the president of the company how long a customer should expect to wait to have a complaint resolved, what would you say? Explain.

The quality manager control manager of Marilyn’s Cookies is inspecting a batch of chocolate-chip cookies that has been baked. If the production process is in control, the mean number of chip parts per cookie is 6.0. What is the probability that in any particular cookie being inspected

1. Fewer than five chip parts will be found?
2. Exactly five chips parts will be found?
3. Five or more chip parts will found?
4. Either four or five chip parts will found?

The owner of a fish market determined that the mean weight for salmon is 12.3 pounds, with a standard deviation of 2 pounds. Assuming that the weights of salmon are normally distributed, what is the probability that randomly selected salmon will weigh

1. Between 12 and 15 pounds?
2. Less than 10 pounds
3. Between what two values will 95% of the salmon weights fall?