

## Skill-Building Exercise 20.1

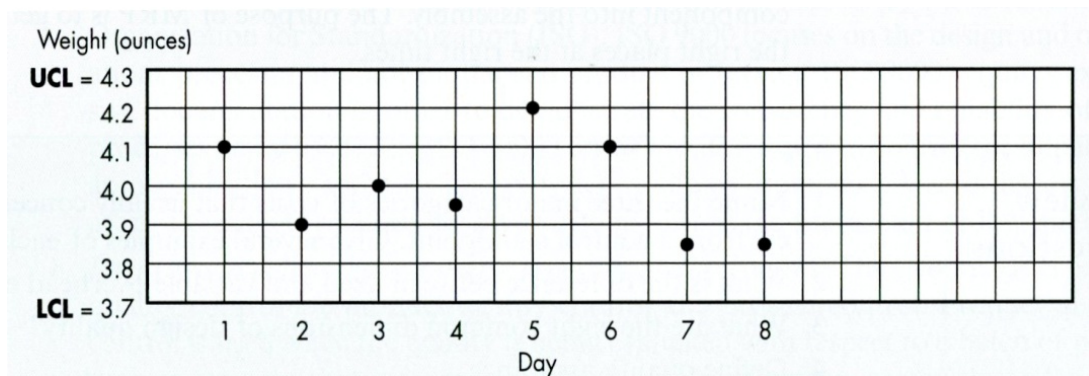
Due Date: By midnight EST/EDT on the last day of Module 6.

Save the file as your lastname\_sb20-1 (e.g., lindbergh\_sb20-1.doc or .docx).

### Out of Control?

#### Situation 1

The manager of a fast-food hamburger chain must ensure that the hamburger advertised as a quarter-pounder is actually 4 ounces, more or less. The company policy states that the quarter-pounder must come within  $\frac{3}{10}$  of an ounce of being 4 ounces in order to be used. The following chart reflects the expected weight of the patty (4 ounces), the upper control limit (4.3 ounces), and the lower control limit (3.7 ounces). A sample of patties has been taken each day for the last eight days, and the average weight recorded for each day is recorded on the chart.

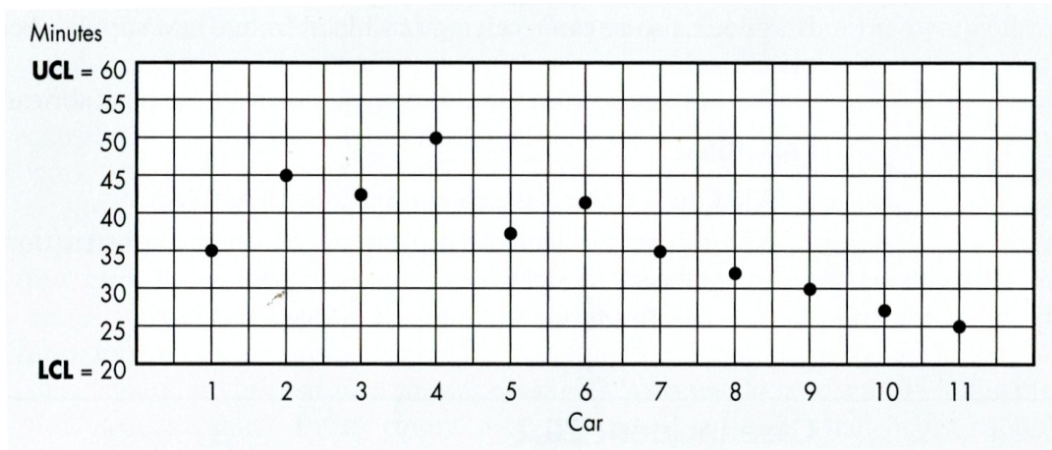


#### Questions for Situation 1

1. Should the patty preparation process be investigated?
2. Is there a problem? Why do you think so?

#### Situation 2

You are the owner of a car repair shop that specializes in tune-ups. On each work order, the mechanic records the time at which he began the tune-up and the time when finished. From these data, you can determine how long each mechanic spends on each job. You expect each job to take about 40 minutes; however, you know that if someone were in a hurry, the job could be done in as few as 20 minutes. Also, you believe that under no circumstances should a tune-up take over one hour. A recently hired mechanic has recorded the times shown on the following chart for his last 11 tune-up jobs:



### Questions for Situation 2

1. Should you have a talk with this mechanic?
2. Is there a problem? Why do you think so?