**Exercise 1  
  
From Chapter 7 of Lind,  submit your responses to  
problem #16 on pp. 237**

The mean of a normal probability distribution is 400 pounds. The standard deviation is 10 pounds.

What is the area between 415 pounds and the mean of 400 pounds?

What is the area between the mean and 395 pounds?

What is the probability of selecting a value at random and discovering that it has a value of less than 395 pounds?

**and problem #42 on pp. 248.**

The accounting department at Weston Materials, Inc., a national manufacturer of unattached garages, reports that it takes two construction workers a mean of 32 hours and a standard deviation of 2 hours to erect the Red Barn model. Assume the assembly times follow the normal distribution.

Determine the *z* values for 29 and 34 hours. What percent of the garages take between 32 hours and 34 hours to erect?

What percent of the garages take between 29 hours and 34 hours to erect?

What percent of the garages take 28.7 hours or less to erect?

Of the garages, 5 percent take how many hours or more to erect?

**Exercise 2**

**Review the multiple choice problems below and select the best choice.**

**2A: Management claims that the probability of a defective relay is only 0.001.  The probability of the relay not being defective is:**

**a.** 0.002

**b.** 0.000001

**c.** 0.999

**d.** 1.0

**2B: A study of absenteeism from the classroom is being conducted. In terms of statistics, the study is called:**

**a.** An experiment

**b.** An event

**c.** An outcome

**d.** A joint probability

**2C: A normal probability distribution is**

**a.** Symmetric around the mean

**b.** Bell shaped

**c.** Asymptotic to the *X*-axis

**d.** All of the above

**2D: To apply this rule of addition, *P*(*A* or *B* or *C*) *P*(*A*) *P*(*B*) *P*(*C*), the events must be**

**a.** Joint events

**b.** Conditional events

**c.** Mutually exclusive events

**d.** Independent events

**2E: For a probability distribution, the sum of the probabilities for all possible outcomes must equal**

**a.** 0.5

**b.** 1.0

**c.** 1.5

**d.** 0.0

**Exercise 3  
Read Lind Chapter 8 and then submit your response to the following problem:**

Urban Plastic Products, Inc. is concerned about the inside diameter of the plastic PVC pipe it produces. A machine extrudes the pipe, which is then cut into 10-foot lengths. About 720 pipes are produced per machine during a two-hour period. How would you go about taking a sample from the two-hour production period?

**Exercise 4  
  
From Lind Chapter 9, respond to problem #32, #38  on printed page 319.**





