Hello everyone,  
  
This week we’ll continue to talk about probability distributions.

In Chapter 7 we’ll look at continuous random variables and continuous probability models. A continuous random variable usually represents a measurement such as height or weight. We can describe the probability distribution of a continuous random variable by a curve for which the probability of an event is equal to the area under the curve.

The normal distribution is a very common bell-shaped continuous probability distribution. You can use the normal calculator in StatCrunch to find normal probabilities for the problems in Chapter 7.

In chapter 8 you'll be introduced to the idea of a sampling distribution, which is the probability distribution of a statistic such as a sample mean or a sample proportion.  The variability of this statistic is called the standard error and is measured by its standard deviation. Under certain conditions, the sampling distribution of the mean and of the proportion will be normal. We can use this information and the StatCrunch normal calculator to answer probability-related questions about the sample mean and sample proportion.

Here are the recommended videos for Chapters 7 and 8 which are located in the Video and Resource Library.

**Chapter 7**

Interpreting the Area under a Normal Curve (3:02)

The Properties of the Normal Curve (4:43)

Example: Find the Value of Z sub Alpha Using StatCrunch (1:32)

Example: Finding Area under a Normal Curve Using StatCrunch (1:55)

Example: Finding the Probability of a Normal Random Variable Using StatCrunch (1:41)

Example: Finding the Value of a Normal Random Variable Using StatCrunch (1:59)

Example: Finding the Value of a Normal Random Variable Using StatCrunch (2:22)

**Chapter 8**

Summary: Shape, Center, Spread of Distribution of the Sample Mean (1:02)

Example: Describing the Distribution of the Sample Mean Using StatCrunch (2:23)

Example: Weight Gain During Pregnancy Using StatCrunch (3:10)

The Sampling Distribution of p-hat (1:44)

Example 3: Describing the Distribution of the Sample Proportion

Example: Computing Probabilities of a Sample Proportion Using StatCrunch (5:24)

Have a good week, and please let me know if you have any questions.  
  
Take care,  
Professor Sullivan