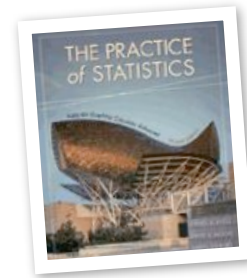# AP Statistics Chapter 13: Chi-Square Procedures

"A statistical analysis, properly conducted, is a delicate dissection of uncertainties, a surgery of suppositions."

~M.J. Moroney

Tentative Lesson Guide				
Date	**Stats**	**Lesson**	**Assignment**	**Done**
Mon 3/19	13.1	Goodness of Fit	Rd 727-743 Do 1-4, 10-13	
Tues 3/20	13.2	Test for Homogeneity	Rd 744-756 Do 14, 16-18	
Wed 3/21	13.2	Test for Independence	Rd 757-766 Do 19, 25-29	
Thu 3/22	**Rev**	**Review**	Do 31-35, 39	
Fri 3/23	**Ex**	**Exam Chapter 13**	**Online Quiz Due**	

Note:

The purpose of this guide is to help you organize your studies for this chapter. The schedule and assignments may change slightly.

Keep your homework organized and refer to this when you turn in your assignments at the end of the chapter.

Class Website:

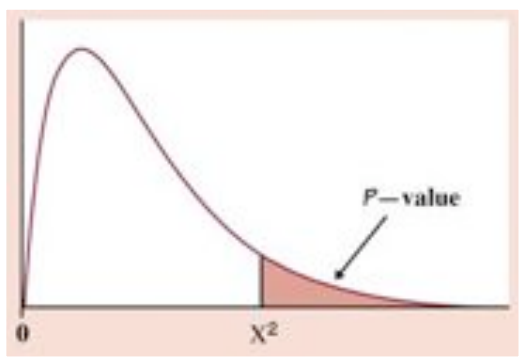Be sure to log on to the class website for notes, worksheets, links to our text companion site, etc.

http://web.mac.com/statsmonkey

Don't forget to take your online quiz!. Be sure to enter my email address correctly! **http://bcs.whfreeman.com/yates2e**

My email address is:

jmmolesky@isd194.k12.mn.us

Chapter 13 Objectives and Skills:

These are the expectations for this chapter. You should be able to answer these questions and perform these tasks accurately and thoroughly. Although this is not an exhaustive review sheet, it gives a good idea of the "big picture" skills that you should have after completing this chapter. The more thoroughly and accurately you can complete these tasks, the better your preparation.

📌 Chi-Square Distributions
- ☐ Describe Chi-Square Distributions
- ☐ Recognize when to use a Goodness of Fit Test, Test for Homogeneity, or Test for Independence

📌 Goodness of Fit Test
- ☐ Use percents and bar graphs to compare hypothesized and actual distributions.
- ☐ Calculate expected counts.
- ☐ Calculate the chi-square statistic.
- ☐ Conduct a Goodness of Fit Test to determine if a population distribution is different from a specified distribution.

📌 Calculator Skills
- ☐ Enter two-way table data into a matrix on the TI.
- ☐ Determine expected counts, chi-square statistic, and p-value from calculator output.
- ☐ Use calculator output to write a complete Chi-Square significance test.

📌 Test for Homogeneity
- ☐ Organize data into a two-way table.
- ☐ Use percents and bar graphs to compare distributions.
- ☐ Calculate expected counts.
- ☐ Calculate the chi-square statistic.
- ☐ Determine degrees of freedom.
- ☐ Perform a Test for Homogeneity to determine if the distribution of a categorical variable is the same in multiple populations.

📌 Test for Independence
- ☐ Organize data into a two-way table.
- ☐ Use percents and bar graphs to compare distributions.
- ☐ Calculate expected counts.
- ☐ Calculate the chi-square statistic.
- ☐ Determine degrees of freedom.
- ☐ Perform a Test for Independence to determine if there is an association between two categorical variables.