Summer Reading 2013

**Numbers Rule Your World** by Kaiser Fung

AP Statistics

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Goal of Summer Reading

This book presents key statistic ideas (probability, variability, type I & II errors, and modeling data) through the use of real world examples. By completing the following reading, you will get a head start on developing the conceptual understanding & vocabulary necessary to be successful in this course.

Your assignment:

Read the introduction and at least one of the two topics from each chapter. For instance, you could read ‘Item Bank’ and then skip ‘Risk Pool’ if it doesn’t catch your attention. **Please read the book with the following questions in mind**. Write up your answer to two questions – answers should be about a paragraph in length. Your responses are due on the first day of school. Hard copies (typed or handwritten) or emailed copies are accepted. Welcome to AP Statistics!

Introduction

1. What are the 5 principles that make up the ‘statistical way of thinking?’

Fast Passes/Slow Mergers

2. How did the Disney Imagineers and/or MN/DoT decrease variability? Why did they choose to look at variability over averages?

Bagged Spinach/Bad Score

3. In Oregon, 4 out of the 5 *E. coli* patients ate bagged spinach. Why was this result deemed unlikely?

4. Critics of credit scores argue that ‘scoring models should employ only characteristics that have a proven causal relationship with failure to repay scores.’ How did credit modelers respond? Which argument do you agree with? Explain rationale.

Item Bank/Risk Pool

5. What is J. Patrick Rooney’s “Golden Rule Settlement?” What does it teach us about grouping?

6. How did insurers change to create ‘fair’ property insurance in Florida?

Timid Testers/Magic Lassos

7. Why are false negatives important in doping for athletes? Why can’t testers just decrease the number of false negatives to catch more cheaters?

Jet Crashes/Jackpots

8. How do the Nantucket airplane crashes explain the statement in the book, “No one ever gets to see the whole picture, so the key is to know what you don’t know?”