

Summer Reading 2011
Numbers Rule Your World by Kaiser Fung
AP Statistics
Galson / Marano

Goal of Summer Reading:

Reading this book is strongly recommended, and is assigned to get your head into the thinking of the larger ideas of statistics. These include probability, variability, and modeling data.

Questions to consider:

1. In the chapter entitled Fast Passes / Slow Merges, the social engineers at Disney created Fast Passes to enable patrons to show up at rides with very little wait time. In another discussion, the Minnesota Department of Transportation created on-ramp meters that space out drivers' entrance onto highways. How are these two programs related?
2. On pages 41 – 43, Fung describes how researchers used information on consumers' habits to decide that bagged spinach was the most likely culprit for the E. Coli outbreak. Describe how the information from FoodNet and probability helped researchers to come to this conclusion.
3. In the chapter entitled Jet Crashes / Jackpots, a researcher from the University of Toronto named Jeffrey Rosenthal concluded that many convenience store owners were defrauding the Ontario lottery. How did he figure this out?
4. Based on Fung's analysis in the chapter entitled Timid Testers / Magic Lassos, why are false negatives important in doping for athletes?
5. In the conclusion of the book, Fung argues that the "Averages are like sleeping pills: they put in a state of stupor and if you overdose, they may kill you." Why are averages so potentially dangerous?

Extra credit will be awarded to students who turn in a well-written reflective summary of the one chapter they thought was most compelling. The summary should discuss the mathematical idea(s) brought up in the chapter. You do not need to write answers to the questions above.