
AP STATISTICS

Summer Assignment 2009

Welcome to AP Statistics! I hope you are looking forward to taking this course as much as I am looking forward to teaching it! In order to accomplish our goals this year, we will need to do some work over the summer. Don't worry – I don't expect you to spend your entire summer thinking about statistics. There will be enough time for that next year! But, I do want you to at least start thinking about statistics and get an introduction into the subject. Good luck, enjoy your summer, and I'll see you in September!!!

Summer Assignment:

This assignment will be due the first day of school for a quiz grade. There will not be any summer sessions for this course, so feel free to email me if you have any questions (aspiegel@rbrhs.org).

- I. Print/clip 2 articles from the news that include statistics. One article should be from June or July and the other from August. Be ready to discuss.
- II. Read The Cartoon Guide to Statistics by Larry Gonick & Woollcott Smith (Chapters 1- 7), and complete the attached assignment. I have almost enough copies of this book for everyone. Please stop by and pick one up, or feel free to purchase your own copy. (Used copies are available online for under \$5.00.)

The Cartoon Guide to Statistics

Chapter 1: What is Statistics?

What is Data Analysis?

What is Probability?

What is Statistical Inference?

Relate the 3 terms above to the Statistician's soup worries.

Chapter 2: Data Description

Define Data:

Describe a Dot Plot:

a Frequency Table:

a Histogram:

a Stem & Leaf Plot:

Describe the difference between a Dot Plot and a Histogram:

Describe Mean vs. Median:

Describe Spread:

Interquartile Range:

Box & Whisker

Standard Deviation:

Chapter 3: Probability

What is Sample Space?

What is an Event?

Describe the Properties of Probabilities

Describe Probability Rules:

Addition

Subtraction

Multiplication

Conditional Probability

Describe Mutually Exclusive

What does Independent mean?

Write down Bayes theorem

Chapter 4: Random Variables

Describe a Random Variable

What is μ ?

What is σ ?

What about a Continuous Random Variable?

Determine how to create random numbers on a TI-89. (If you don't have one yet, go on-line and research how to create random numbers!)

(Don't worry about the integral sign if you haven't had Calculus yet!)

Chapter 5: A Tale of Two Distributions

What is a Bernoulli trial?

What is the binomial random variable?

What is the Standard Normal Distribution?