

Dear Future AP Statistics Student:

I have attached both my contact information and the summer work for our class next year. Please read the instructions carefully and completely. I have asked that you take notes, do the problems *within* each of the first 3 chapters and complete two quizzes. Those should be written out in detail. The end-of-chapter exercises are intended for additional practice. I am fine with you doing enough to feel confident with the content without writing out your responses completely. Please understand, however, that you will be responsible for the content and associated problems from each of the chapters, so you should at least peruse them to be sure you are set with the material. This work is due the first day of class. Late work will not be accepted.

I am looking forward to a great year of statistics with you. Have a fun and relaxing summer.

Let me know if you have any questions,
Mrs. Brandvold

AP Statistics Summer 2014 Homework and Information

Teacher Information

Mrs. Laurie Brandvold

BHS e-mail: laurie.brandvold@thompsonschoools.org

Cell phone: (970) 690-7013 Home e-mail: ljbrandvold@hotmail.com
(please, no calls between 10:00pm and 5:30am)

Instructions for AP Statistics summer work.

Before leaving school this year (due Friday, May 30, 2014):

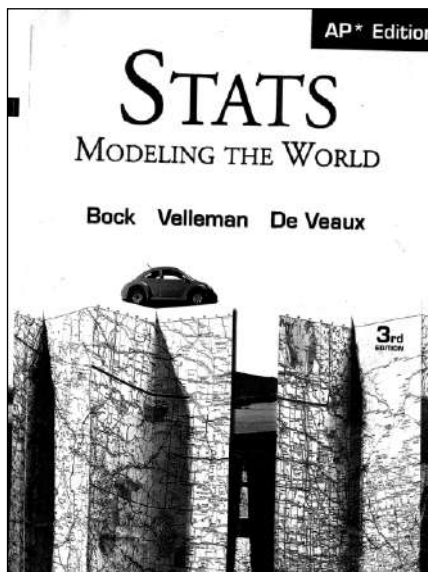
1. Log onto your school email account and send me an email message (laurie.brandvold@thompsonschoools.org) with the following information:
 - Your name (as you would like me to address you),
 - your career plans (if you have an idea),
 - which class(es) you are taking from me next year,
 - the best way to contact you over the summer, AND
 - the best way to contact you during the school year.

We will be using this email account to correspond and to log into Google-related applications. Your login should be fmlastXX@thompsonschoools.org where f is your first initial, m is your middle initial, last is your entire last name, and XX is your 20XX graduation year. Your password should be your student number. However, it is possible that you used BHS or 00 followed by your student number for a password. This is why I want you to login before you leave school so the IMC folks can help you if you need to get something changed before everyone goes home for the summer.

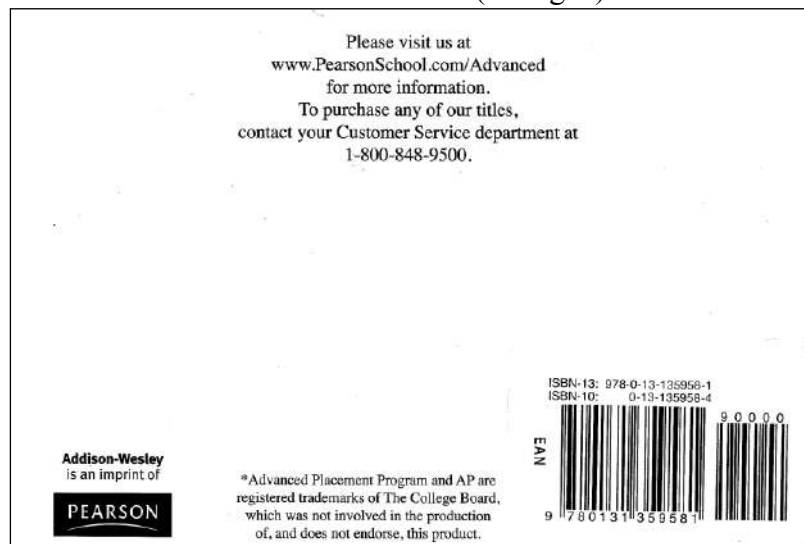
The rest is due on the first day of class next year:!

2. Secure a textbook that we will use every day of the class! **Please allow for shipping time, which is sometimes several weeks.** The textbook we will be using is Stats: Modeling the World, 3rd Edition; Bock, Velleman, De Veaux; Pearson Education 2010.
ISBN-13: 978-0-13-135958-1
ISBN-10: 0-13-135958-4

The front of the book looks like this:



The back of the book looks like this (enlarged):



3. Secure a graphing calculator to use on a daily basis. TI – 83/84 and TI-Nspires are the most popular and widely supported models. We will use a calculator EVERY DAY and you will use one for virtually every assignment. In any case, be sure to familiarize yourself with the use of the calculator before classes begin. Technology Tips are included in the textbook. Look for those and practice the methods discussed there. As always, if the purchase of the text or calculator causes financial hardship, please contact me.
4. Read the Preface and Chapters 1-3 (for understanding, not just for pleasure 😊).
As you read,
 - a. take notes on the main ideas from the chapter, including vocabulary and formulas, and
 - b. complete the Just Checking activities within the chapters. (Answers to Just Checking Exercises are found at the end of the chapter exercises.)
5. Check out the problems at the end of each chapter for practice with the concepts. Try the odd-numbered exercises since abbreviated answers are in the back of the book.
6. Complete the attached take-home quizzes for Chapters 2 and 3.
7. Be prepared to complete an assessment (over the reading and exercises) on the first day of class.

In November 2003, *Discover* published an article on the colonies of ants. They reported some basic information about many species of ants and the results of some discoveries found by myrmecologist Walter Tschinkel of the University of Florida. Information included the scientific name of the ant species, the geographic location, the depth of the nest (in feet), the number of chambers in the nest, and the number of ants in the colony. The article documented how new ant colonies begin, the ant-nest design, and how nests differ in shape, number, size of chambers, and how they are connected, depending on the species. It reported that nest designs include vertical, horizontal, or inclined tunnels for movement and transport of food and ants.

1. Describe the W's of the information given:

- WHO:

- WHAT:

- WHEN:

- WHERE:

- HOW:

- WHY:

2. List the variables. Indicate whether each variable is categorical or quantitative. If the variable is quantitative, indicate the units.

To determine if people's preference in dogs had changed in recent years, organizer of a local dog show asked people who attended the show to indicate which breed was their favorite. This information was compiled by dog breed and gender of the people who responded. The table summarizes the responses.

	Female	Male	Total
Yorkshire Terrier	59	73	132
Dachshund	47	49	96
Golden Retriever	33	58	91
Labrador	41	37	78
Dalmatian	28	45	73
Other breeds	67	86	153
Total	275	348	623

1. Identify the variables and tell whether each is categorical or quantitative.
2. Which of the W's are unknown for these data?
3. What percent of the responses were from males who favor Labradors?
4. What percent of the male responses favor Labradors?
5. What percent of the people who chose Labradors were males?
6. What is the marginal distribution of breeds?
7. Write a sentence or two about the conditional relative frequency distribution of the breeds among female respondents.
8. Do you think breed selection is independent of the gender of the respondents? Give statistical evidence to support your conclusion.