

Harvard School of Public Health
Strategies for Success
Math Workshop
2011

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Welcome to the Math Workshop! We are pleased to offer an opportunity for you to refresh your memory about math skills that will be helpful in your introductory biostatistics and epidemiology courses. By the end of the course, you will remember the mathematical concepts you learned earlier in your education, you will see how these concepts will apply in future courses, and you will be more comfortable with math and thus better able to concentrate on the courses' main concepts.

By now we hope you have had a chance to tackle the first 3 modules over the web. Now it's time for the classroom component. A list of the web topics and the topics to be covered each day is shown below. Each day you will be asked to sign the attendance sheet; this will help us assess how useful each day's topics are. Next, there will be a "warmup", which is a small set of problems that sample the subjects to be covered that day. You can take a few minutes as the class gathers to work through these problems. If you run across some notation or problems that are mysterious, do not be alarmed! That will be an indication that the day's topics will include something new. After the warmup, we will work through the day's topics, pausing frequently as we go to practice what we've discussed. Finally, each day there will be a set of exercises to take home and work on. You are encouraged to pass the exercises in the next day. We will correct them and return them to you as soon as possible. Due to time constraints, we will not be able to correct exercises that are more than 1 day late.

If you have been asked to attend the Math Workshop as a condition of admission, you should be sure to:

- Sign the attendance sheet and attend each session
- Turn in the exercises

You will need a calculator that is capable of doing square roots and logarithms. You can purchase such a calculator at drug stores, office supply stores, or at the bookstore (the COOP). It need not be an expensive calculator. You should bring your calculator to class every day.

These class materials contain all the information you will need; there is no textbook for this workshop. If you feel that you need to purchase a book with additional practice exercises, here are a couple of books that might be worthwhile:

Master Math: Basic Math and Pre-Algebra, by Debra Anne Ross. Career Press, 1996, 178 pages. (\$11.99)

Quick Algebra Review: A Self-Teaching Guide, by Peter H. Selby and Steve Slavin. Wiley, 1993, 232 pages. (\$18.95)

Both of these are available from amazon.com (www.amazon.com) and ship within a couple of days.

Web Component (see <http://biowww.dfci.harvard.edu/~mathcourse>)

Module 1	Kinds of Numbers and Data, Fractions, Negative Numbers, Rounding, Averaging, Properties of Real Numbers, Exponents and Square Roots, Scientific Notation, Order of Operations, Evaluating Variable Expressions
Module 2	Functions, Linear Functions, Graphs, and Polynomial Functions Percents
Module 3	Solving Linear and Quadratic Functions, and Absolute Value Equations

Classroom Component

Saturday, 8/27 1:00 to 3:00 pm	Greatest Hits from the On-Line Modules
Saturday, 8/27 3:00 to 5:00 pm	Functions, Logarithms and Exponents
Sunday, 8/28 8:00 to 10 am	Solving Word Problems Using Functions and Inequalities
Sunday, 8/28 10:00 am to 12 noon	Factorials, Combinations, Summations and Products