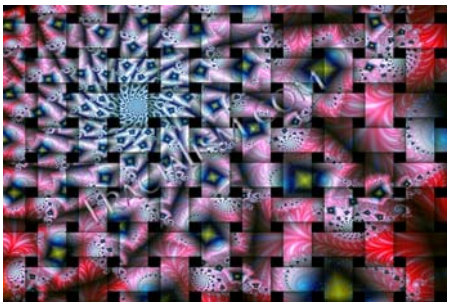
Math 100C:12A
Fall/2009
Senior Lecturer: Mrs. Susan Riner



Fractal Art

Thoughts on mathematics…….

Perhaps the greatest paradox of all is that there are paradoxes in mathematics.
Kasner, E. and Newman, J.

From *Alice's Adventures in Wonderland* by Lewis Carroll: The Mock Turtle went on. 'We had the best of educations ... Reeling and Writhing, of course, to begin with, and then the different branches of Arithmetic: Ambition, Distraction, Uglification, and Derision.'

It is the merest truism, evident at once to unsophisticated observation, that mathematics is a human invention. Bridgman, P. W.

The mathematical sciences particularly exhibit order, symmetry, and limitation; and these are the greatest forms of the beautiful. Aristotle

From *The Times* [London] article titled *Pupils sum up math teachers as fat nerds* by Simon de Bruxelles: MATHEMATICIANS are fat, scruffy and have no friends -- in any language. Youngsters from seven countries, asked to come up with a portrait of the typical mathematician, showed a badly dressed, middle-aged nerd with no social life….. Most children drew white men with glasses, often with a beard, bald head or weird hair, and shirt pockets filled with pens, who were working at a blackboard or computer.

And my personal favorite:
Life is good for only two things, discovering mathematics and teaching mathematics.
Siméon Poisson

Math 100C
Syllabus
Fall, 2009

Senior Lecturer: Mrs. Susan Riner
Office: 120B Pierce hall
Phone: 784-8316

Text: Algebra and Trigonometry by Keedy/Bittinger, 6th edition

Purpose: This course is designed to prepare students for Math 107, Math 109, Math 120, and Math 125. Math 100C will provide each student with an opportunity to increase his or her proficiency in and understanding of the basic concepts of Algebra, graphing, combinatorics, probability, and basic trigonometry. You may not drop Math 100C after September 2nd.

Goals and Objectives: Students should - without the aid of a calculator – demonstrate the following: proficiency in algebraic and trigonometric calculations, graphing lines, parabolas, absolute values, hyperbolas, circles, sine and cosine curves, logarithmic and exponential functions; rules of probability, and methods of counting; retention of algebraic and trigonometric formulas; understanding of basic concepts, rules, and theorems in algebra, trigonometry, probability, and counting.

Attendance: Students are expected to be on time and attend all classes and are responsible for all material covered in class as well as any changes made in the attached schedule regarding topics, homework, quizzes, and test dates. Attendance and consistent preparation for class will determine the success or failure the student realizes in this course. Missing classes, tests, assignments, etc. due to observance of religious holidays should be worked out in advance with the professor.

Homework: Homework problems will not be collected but are assigned to benefit you. You will need to study 2-3 hours outside of class for every hour spent in class.

Tutoring: Student tutors are scheduled for a limited amount of time per week in the afternoon and evening in the Mathematics Center in Pierce Hall. You may want to consult tutors if you are having trouble with homework problems. Tutoring schedules are posted on the Oxford web page, on Blackboard, in the classrooms, and in the Mathematics Center.

Labs: There will be four Math 100C labs. During these labs, students will work in groups on problems related to the material currently being covered in class. Students may use textbooks, calculators, and class notes. Each group will turn in one lab and receive one grade. Attendance is mandatory. Since lab assignments are to be done as a group rather than individually, **there is no provision for making up a missed lab.**

Honor Code: **The Honor Code of Oxford College applies to all work submitted for credit. You will pledge with your signature that the work you submit for credit is yours and yours alone.**

Assessment Procedures: Tests will be given on Tuesdays during the lab period. Quizzes will be given during class time. Labs not used for tests will be used for graded group assignments. Each test should be passed with 70 points or more with provisions made for one re-test per section. 70 will be the highest grade given on a re-test. If any student needs special accommodations, the appropriate paperwork should be turned in to the professor and arrangements made prior to the first graded assignment. There is no provision for making up tests. **If a student has a note from a doctor or a documented family emergency**, that student may take the re-test. The lowest quiz grades will be dropped. Therefore, **there is no provision for making up a quiz**.

A STUDENT MUST MAKE 70% OR ABOVE ON THE FINAL EXAM IN ORDER TO PASS MATH 100C.

Points will be distributed as follows:

4 Tests	100 points each	400 points
4 Labs	25 points each	100 points
Quizzes	100 points total	100 points
Final Exam	200 points total	200 points
Total		800 points

Grades will be assigned as follows:

A (90 - 100): 720-800 points
B (80 - 89): 640-719 points
C (75 - 79): 600-639 points
D (70 - 74): 560-599 points
F: Below 560 points

Math 100C - Topics

Wed., Aug. 26	1.2 - Exponential Notation
Fri., Aug. 28	No Class
Mon., Aug. 31	1.3, 1.4 - Algebraic Operations
Wed., Sept. 2	1.5 - Factoring
Fri., Sept. 4	1.6 - Rational Expressions
Mon., Sept. 7	Labor Day Holiday
Tues., Sept. 8	**Lab I**
Wed., Sept. 9	1.7 - Radical Expressions
Fri., Sept. 11	1.8 - Rational Exponents
Mon., Sept. 14	Review
Tues., Sept. 15	**Test I**

Wed., Sept. 16	2.1 - Solving equations and Inequalities
Fri., Sept.18	2.2 - Rational Equations
Mon. Sept. 21	2.5 - Quadratic Equations
Wed., Sept. 23	2.6 – Area, volume, interest, motion problems
Fri., Sept. 25	2.6 – Area, volume, interest, motion problems
Mon., Sept. 28	2.7 - Radical Equations
Tues., Sept. 29	**Lab II**
Wed., Sept. 30	2.8 – Equations Reducible to Quadratic
Fri., Oct.2	3.1 – Graphs (absolute value, hyperbola, parabola)
Mon., Oct. 5	3.1 – Graphs (piecewise, half parabolas)
Tues., Oct. 6	**Test II**
Wed., Oct. 7	3.2 – Distance, Circles, Semi-circles
Fri., Oct. 9	3.3 – Functions
M-T, Oct. 12, 13	Midsemester Break
Wed., Oct. 14	3.4 – Linear Functions
Fri., Oct. 16	3.7 - Composition,
Mon., Oct. 19	3.8 –Transformations
Wed., Oct. 21	4.1 - Quadratic Functions
Fri., Oct. 23	9.1 – Systems of Equations/ Two Variables
Mon., Oct. 26	9.1 – Rate, distance, mixture, work problems
Tues., Oct. 27	**Lab III**
Wed., Oct. 28	9.7 – Linear Programming
Fri., Oct. 30	9.7 – Word Problems
Mon., Nov. 2	Review
Tues., Nov. 3	**Test III**
Wed., Nov. 4	11.1 – Sequences and Series
Fri., Nov. 6	11.2 – Arithmetic Sequences
Mon., Nov. 9	11.3 - Geometric Sequences
Wed., Nov. 11	11.5 – Fundamental Counting
Fri., Nov. 13	11.5 - Permutations
Mon., Nov. 16	11.6 - Combinations
Tues., Nov. 17	**Lab IV**
Wed., Nov. 18	11.7 – Binomial Theorem
Fri., Nov. 20	11.8 - Probability
Mon., Nov. 23	Rules of Probability, Tree Diagrams
W-F, Nov. 25-27	Thanksgiving Break
Mon., Nov. 30	Review
Tues., Dec. 1	**Test IV**
Wed. Dec. 2	Measures of Central Tendency
Fri., Dec. 4	Measures of Variability
Mon., Dec. 7	Exam Review