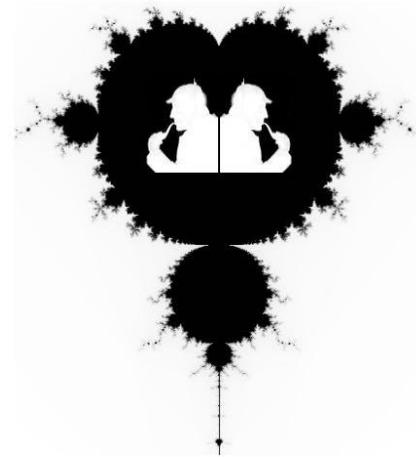


=EQUALS=

A CLUB OF INVESTIGATION AND DISCOVERY

www.equalsclub.com



=EQUALS= is a math, science, programming, and critical thinking club for students, teachers, parents --- anyone! The club is open to persons of all ages, of all abilities, and is for those who not only enjoy math/science, but those who don't as well! The goal of =EQUALS= is to look at fractals, simulation, statistics, chaos and complexity, engineering, math, etc., from a new perspective – *and actually do the work.*

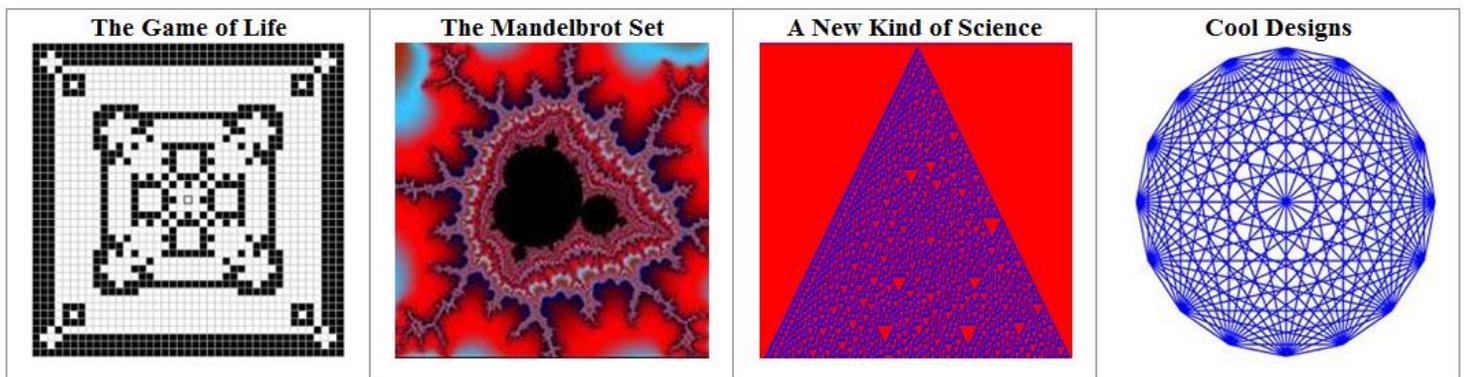
ABOUT THE LOGO

The Mandelbrot Set, super-imposed with the image of Sherlock Holmes, suggests the marvel of the investigative process in seeking to understand reality.

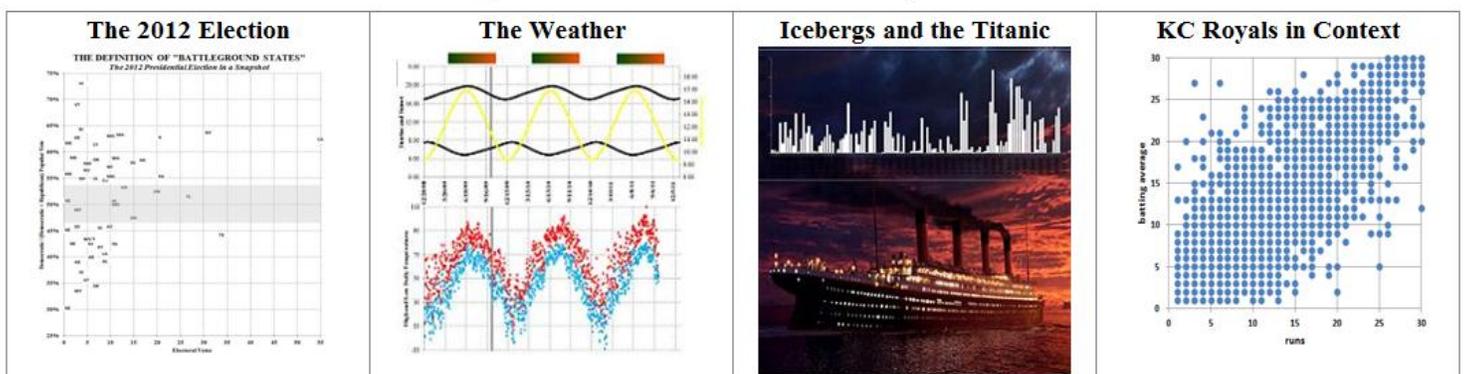
ABOUT THE WEBSITE

All materials are always available on the website. Additional materials include “frequently asked questions” about Excel and how to do things, brief videos on how to solve problems, and general questions / inquiries on using this environment to investigate other subjects, be they the Olympics, electricity, molecules, astronomy --- *you name it!*

Contests



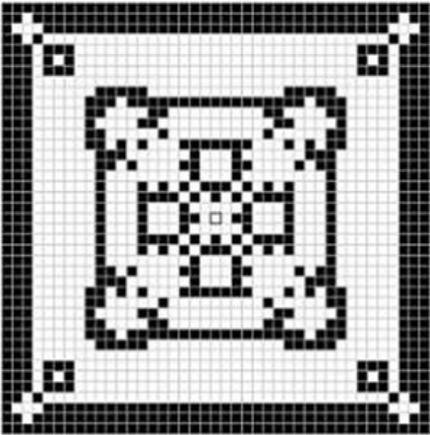
Informational Graphics



AUGUST 2012

An introduction to =EQUALS=, the website, resources, and the spreadsheet. And we'll investigate The Game of Life, the Titanic, and Cool Designs, and see where our "brief look" can take us!

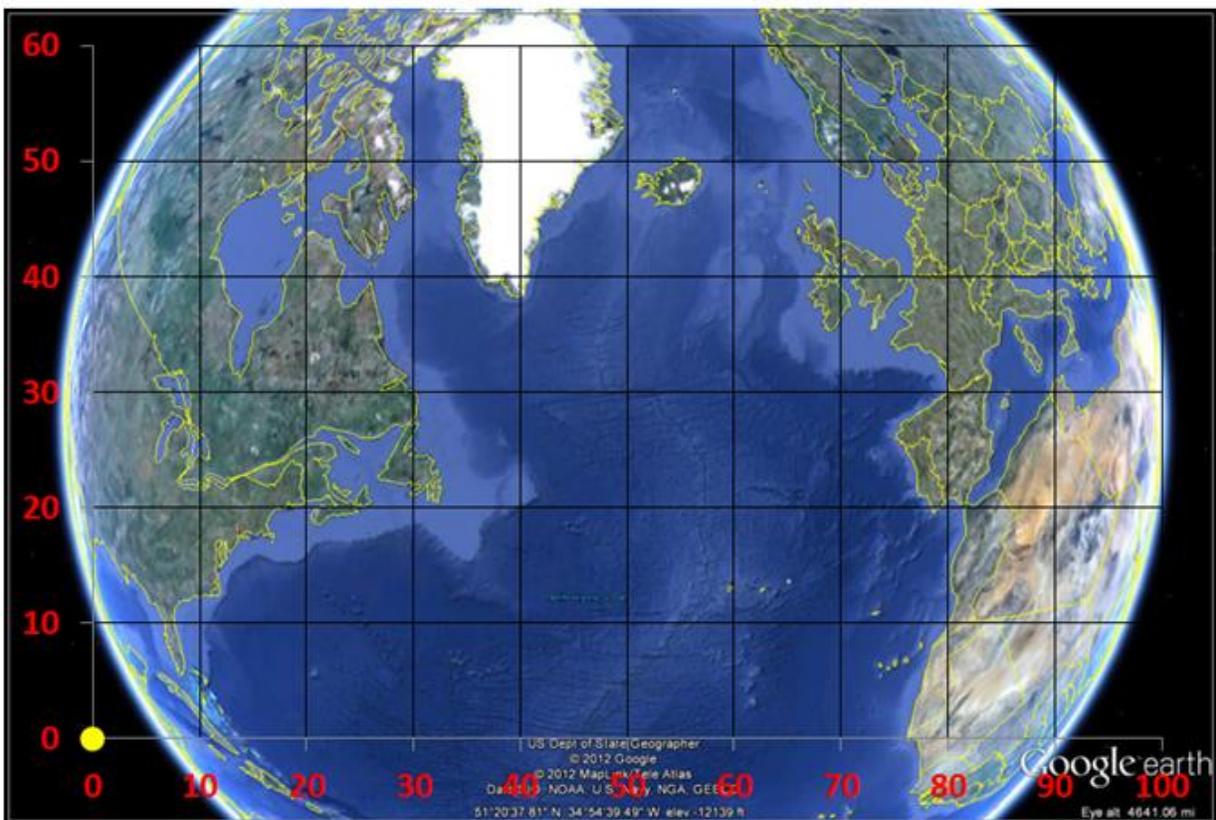
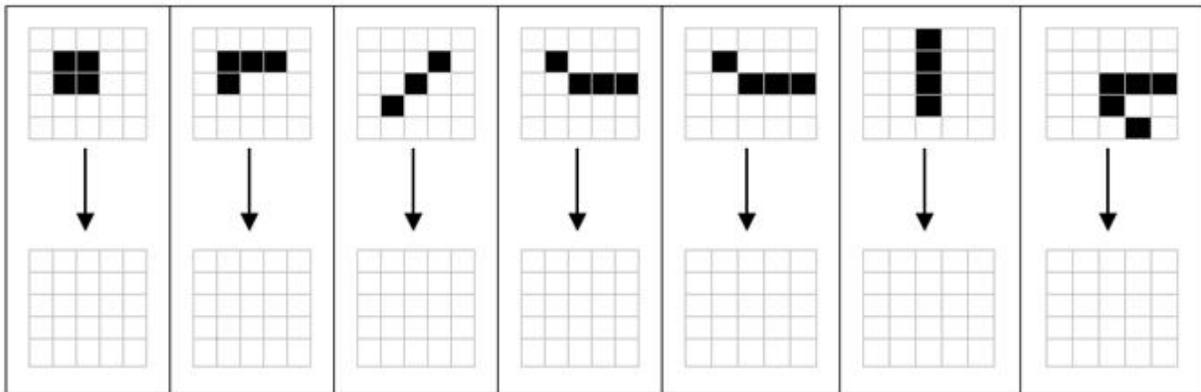
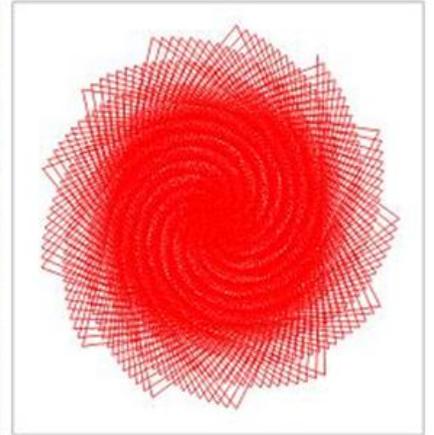
THE GAME OF LIFE



THE TITANIC
100th Anniversary Thoughts



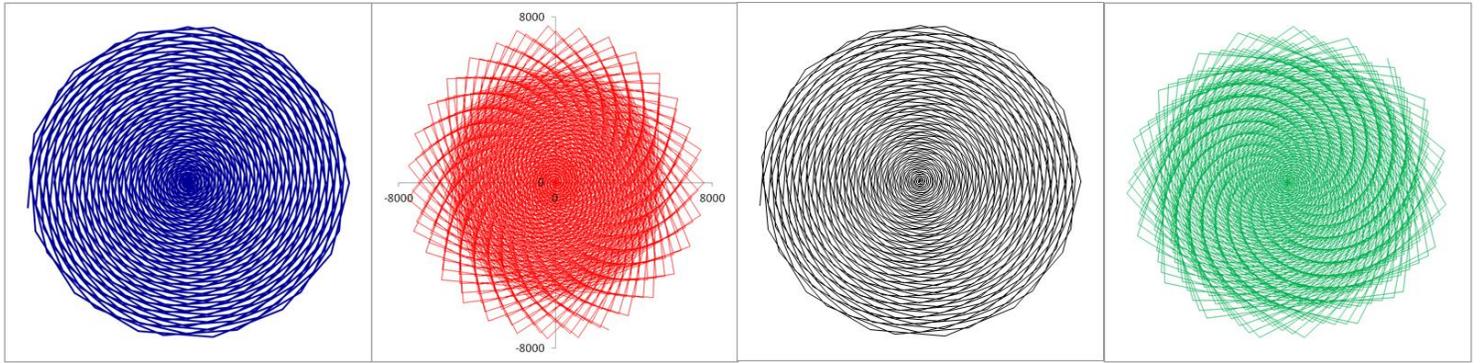
A UNIQUE DESIGN
Spreadsheet



	titanic		iceberg	
	x	y	x	y
start				
finish				

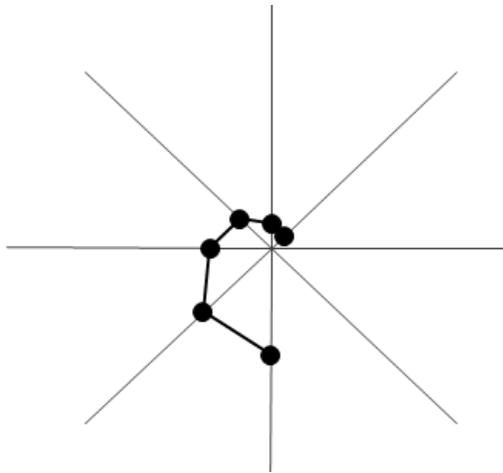
THE PRIME SPIRAL

AND MOVING ABOUT THE GRID



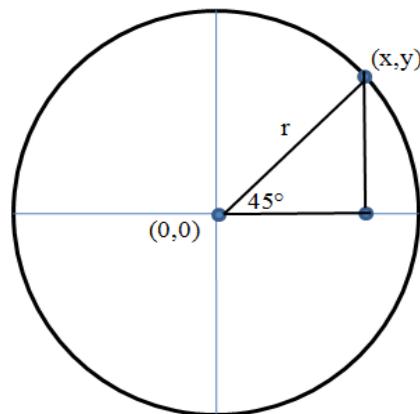
I want to “move about” the grid by creating evenly-spaced angles, and then move up an imaginary line on that angle by the distance of the next prime number. For example, if I evenly spaced out the angles by 45 degrees and started plotting the prime numbers, *what would happen?* Here’s a start:

Prime	Angle
2	45
3	90
5	135
7	180
11	225
13	270



There are at least two ways I can visualize these points. One is by the distance and angle (r, α) . The other is by moving relative to the x - and y -axis. These two methods of moving – these coordinate systems – are:

Coordinate Systems	
POLAR	CARTESIAN
(r, α)	(x, y)



That’s a start: the rest is in the spreadsheet and on the website – and least a part of it!

ASSIGNMENTS

1. In the “Game of Life”, find a neat design and send me the rule and starting pattern;
2. Recreate the “Cool Design” graphic, using the video hints on the website;
3. Most important, send me something you’re working on in class, or see on TV. State capitals. Electron Orbits. Mars. Radiation. A question in math. It doesn’t matter what it is, so long as it’s of interest to you!