# Assignment: Graphing with Scratch

Intro

Your Scratch program will provide basic graphing functionality. You'll draw out axes and plot 10 points stored in a list. You'll also create a short script to populate the list with points for a function. The assignment will be worth 20 points, 2 of which will be for creativity. You could make your points colorful, come up with a cool background, anything!
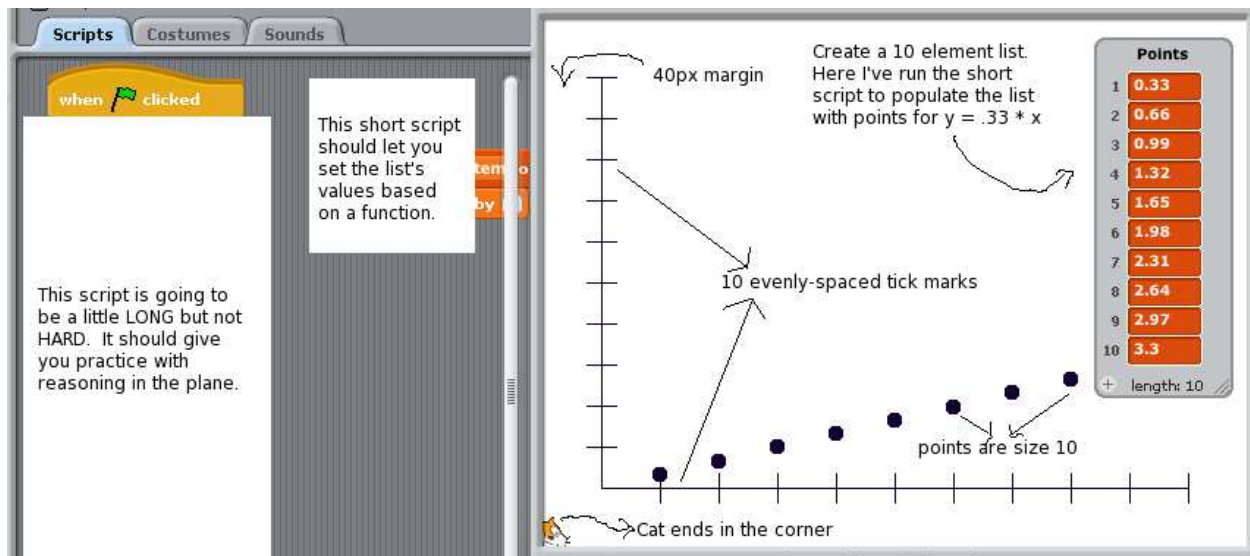
Why do this?

Spatial reasoning is critically important for many occupations. This assignment will give you practice with working in a coordinate plane. Additionally, lists allow us to structure data we work with – this is important for nearly any complex program. In completing the assignment, you'll get experience creating, reading from and modifying lists.

Details

- The axes are 40px away from the edges of the screen
- The axes are drawn in black and are 1px thick
- The ten markers on each axis should be evenly spaced
- Each tick mark is 20px long and centered on the axis
- Points are 10px wide
- The list has 10 elements (you'll have to create it by hand)
- You can both set points by hand or use a short script to populate the list based on a function
- The cat should go rest in the corner at the end of your script

Strategy

Remember, you should always plan out your solution before you sit at the computer. Why don't you start with the short function script? Keep the tick marks for the end since they're the most tedious part.