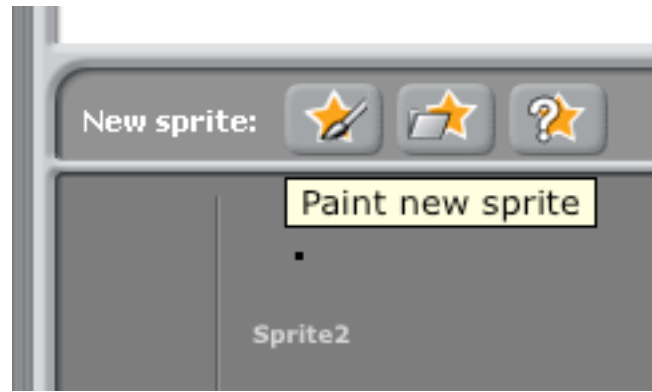
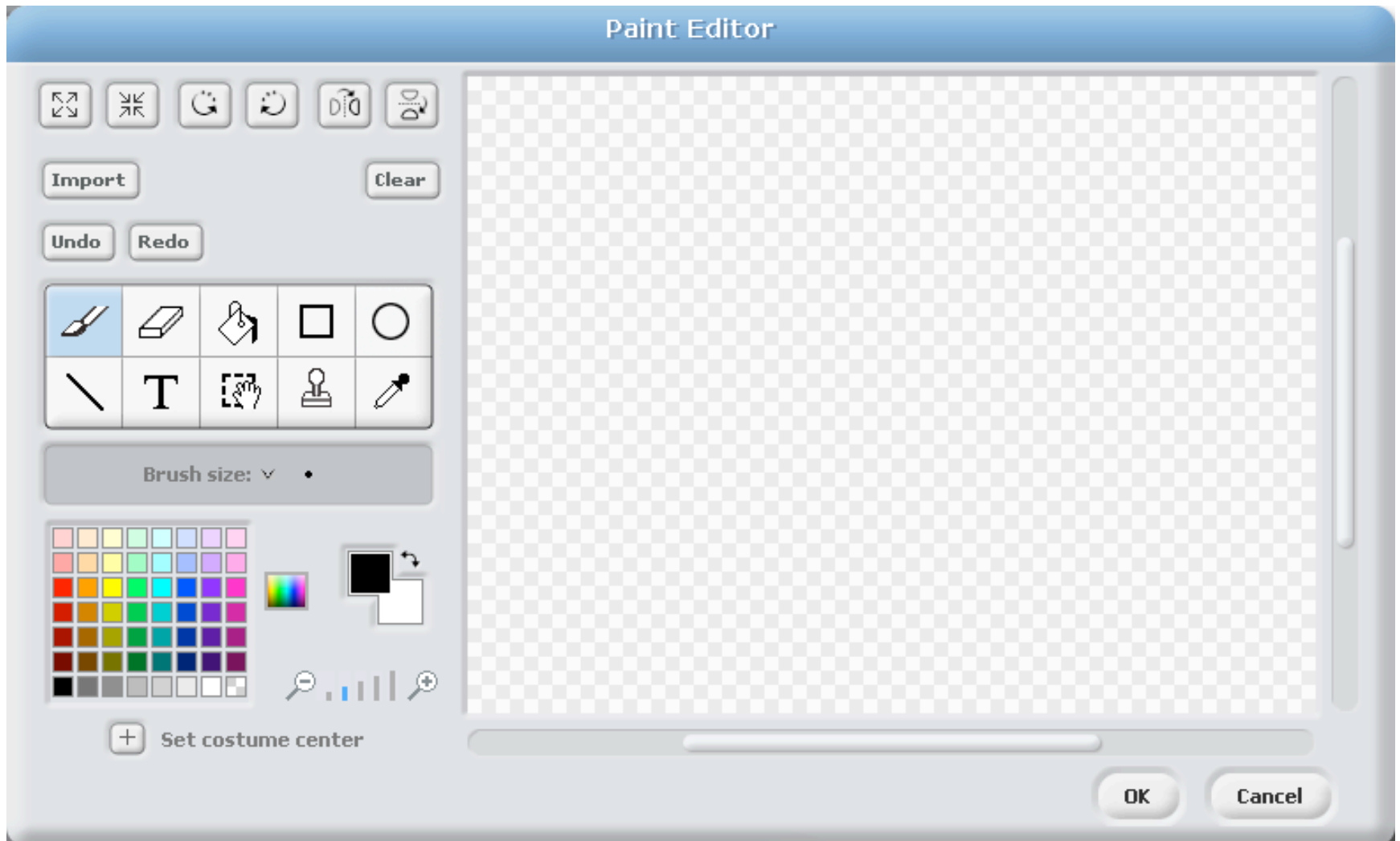


Simple Graphing in Scratch

To create a graph, in real-time, first create a new sprite by selecting the New sprite icon:

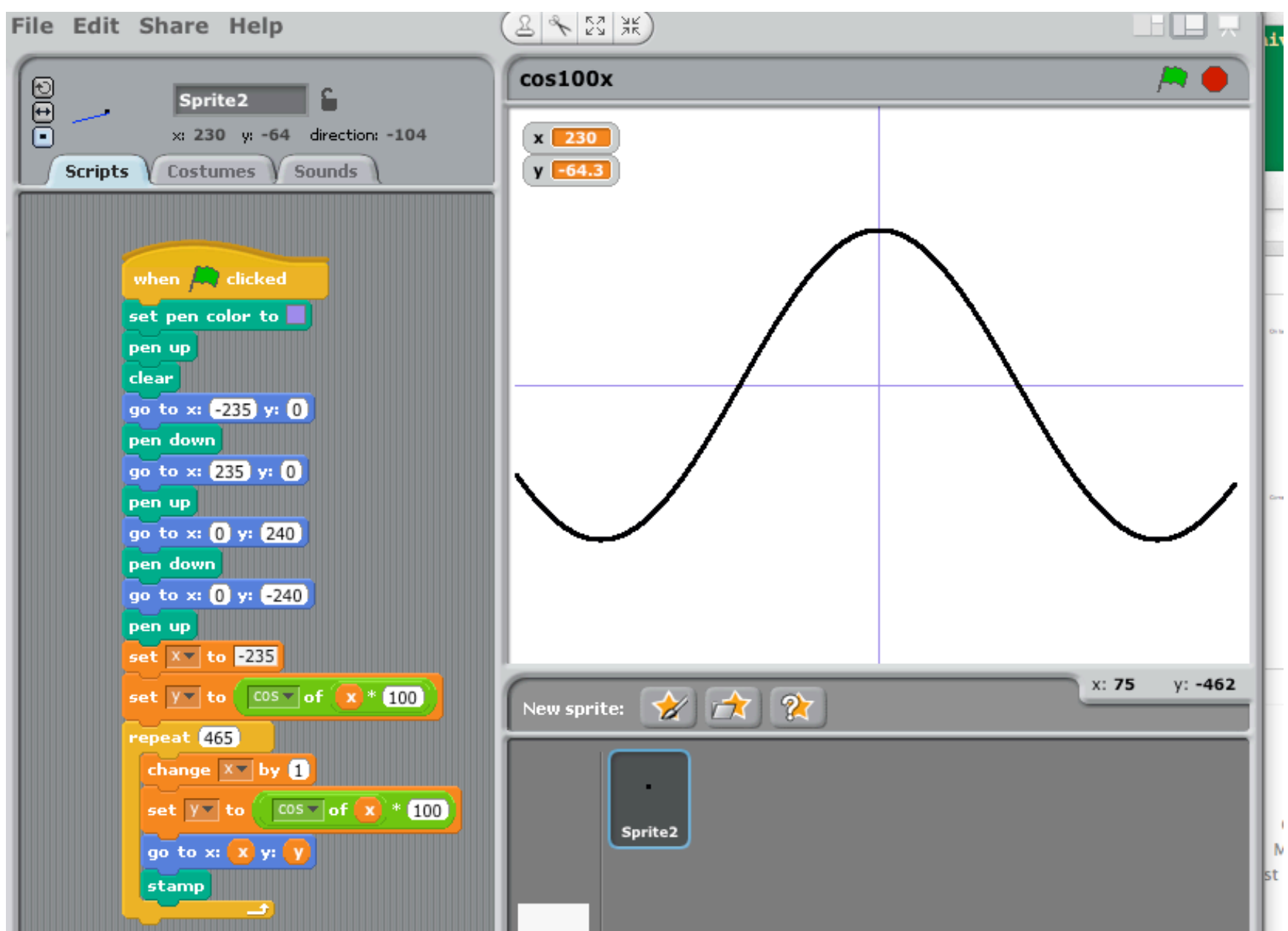


Selecting the first icon, just right of "New sprite:" brings up:



Using the Paint Editor, shown above, new sprites can be created; more will be shown in class. In short put the Paint editor into the lowest magnification by selecting the magnify glass just right of the color palette, bottom-right of the Paint Editor and selecting one pixel, which will be used for graphing in the next example.

Next try the following program:



Notes:

1. This program draws 456 individual dots using the equation $y = \cos(x) * 100$; where x starts at -235 and ends at 230
2. Note that y, based on simple trigonometry, varies from -100 to 100
3. The X and Y axis are drawn using the "code" prior to the orange components
4. What happens if x is incremented by 10 through the loop, instead of 1 and the loop is run 47 times instead of 465? Try it.
5. Running this program can quickly drain your laptops battery as this program uses many compute intensive operations