Session 5 – Drawing with Scratch

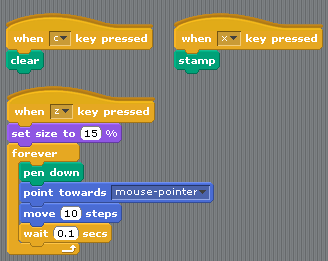
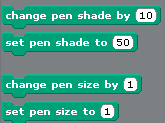
Oops, last week I said variables was the last type of function we had not looked at. Actually it is “Pen” operations. You can use pen commands to have your sprites draw things or draw things yourself.

**Step 1: Strange experiments**

To start drawing you need to use a different spite. You can draw one yourself, import wizardhat, or just make scratchie a lot smaller.

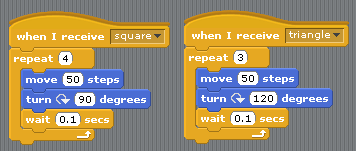
**Step 2: Drawing with the mouse**

Let’s make a “follow the mouse” drawing. We’re going to use keyboard events to control the drawing. Add the following programs to Scratchy’s Scripts. “c” will clear the screen. “s” will leave a copy of the current costume on the screen, and z will draw on the screen. Play around a little with the pen shade and pen size commands to see what they do.



**Step 3: Making shapes**

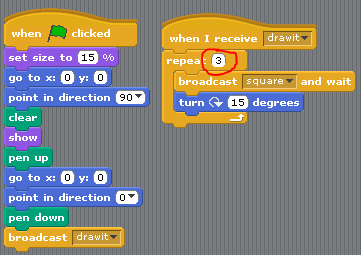
Scratch can be used to draw shapes on the screen, try these two.



Can you make one that draws a pentagon? The angle you need to turn is 360/n where n is number of sides.

**Step 4: Cool stuff with shapes**

Now try a program that does some more advanced drawings. Change the repeat to a bigger value, how big does it need to be to make it all the way around?



**Step 5: More drawing**

You can draw pictures in scratch. I have the script below that I used to draw a happy face. In the main script (the one with ‘When Clicked’), I move to different locations on the stage and broadcast events that draw different types of shapes. Notice that I used a variable size so that I could easily draw different size squares!

