Programming Mirror Drawing

1) Use the scissors to delete the cat sprite. Add a pencil sprite. You can find it inside the “Things” folder.

2) Try drawing with the sprite.

   HINT: If your screen gets too full of drawing, add the code pictured above that clears the screen.

3) Change `go to mouse-pointer` into `go to x: [mouse x] y: [mouse y]` to match the picture above (hint: mouse x and mouse y are sensing blocks). The two blocks have identical behavior but separating the x and y mouse positions gives us more flexibility. When programming, we often have different ways to express the same outcome and we have to consider the implications of each possibility.

4) Right click on your pencil sprite in the sprite management area to duplicate it. You should now have two pencils following your mouse.
5) The stage in Scratch is a coordinate plane. The x-axis goes side to side and the y-axis goes up and down.

Make the second pen mirror what the first pen draws over x-axis.

If the main pen is at (-100, 100), where should the mirror pen be?

If the main pen is at (-10, 34), where should the mirror pen be?

Generalize: If the main pen is at (mouse x, mouse y), where should the mirror pen be?

Update the coordinates of the second pen with the coordinates you just found.

HINT: You can find mathematical symbols such as addition or multiplication in the Operators category.

6) Create two more pen sprites that mirror the first pen sprite so that you have one pen in each quadrant of the coordinate space. Figure out their coordinates the same way you figured out the first mirror pen’s coordinates.

7) Change the pen color as you draw.

HINT: Pen shade affects how dark the color is. If all your colors appear really dark try using

8) Change the pen color every time you start drawing a line but keep it the same while you are drawing.