Scratch Across the Math Curriculum

Introductory Activity

Navigate to *MrHonner.com/NYSMTPScratch* and click on the *Introductory Activity* link.

Click on the green flag to start the program. Test out the program with a few different inputs. After, click on the *See Inside* button to examine the Scratch code that makes the program work.

Familiarize yourself with the basic functionality of the program: how Scratch handles input and output; how variables are assigned values; and how operations can be combined to produce complex expressions.

Once you are familiar with how this simple program works, see if you can implement the functions below in Scratch.

Easy	Medium	Hard
$f(x) = 3x - 4$	$f(x) = x^3 - 2x^2 + x + 1$	$f(x) = \begin{cases} 1 - 2x & x < -3 \\ 2x + 5 & x \geq -3 \end{cases}$
$f(x) = 1 - x^2$	$f(x) = e^{\frac{x+1}{x-1}}$	$f(x) = \lfloor x \rfloor$

Challenge

$f(x) =$ *the leading digit of x*