Archipelago - Bonus Submissions

CMIMC New Language Round

April, 2025

"The difficulty of unifying a thousand separate lands is not in the unification itself, but in the balance of power that must be maintained once the unity is achieved. The real danger lies not in the ambition to unite, but in the overreach that follows."

Napoleon Bonaparte

Instructions. The following submissions are ordered by time of submission. Please look at the following submissions, and pick between two to three of your favorite submissions. You may not pick only one submission.

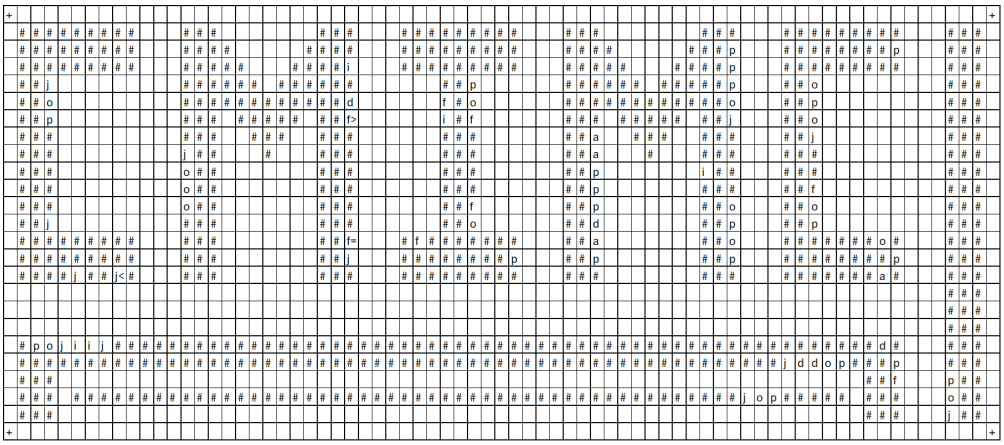


Figure 1: input is one integer x ($x > 0$) and output is the collatz sequence starting from x until it reaches 1

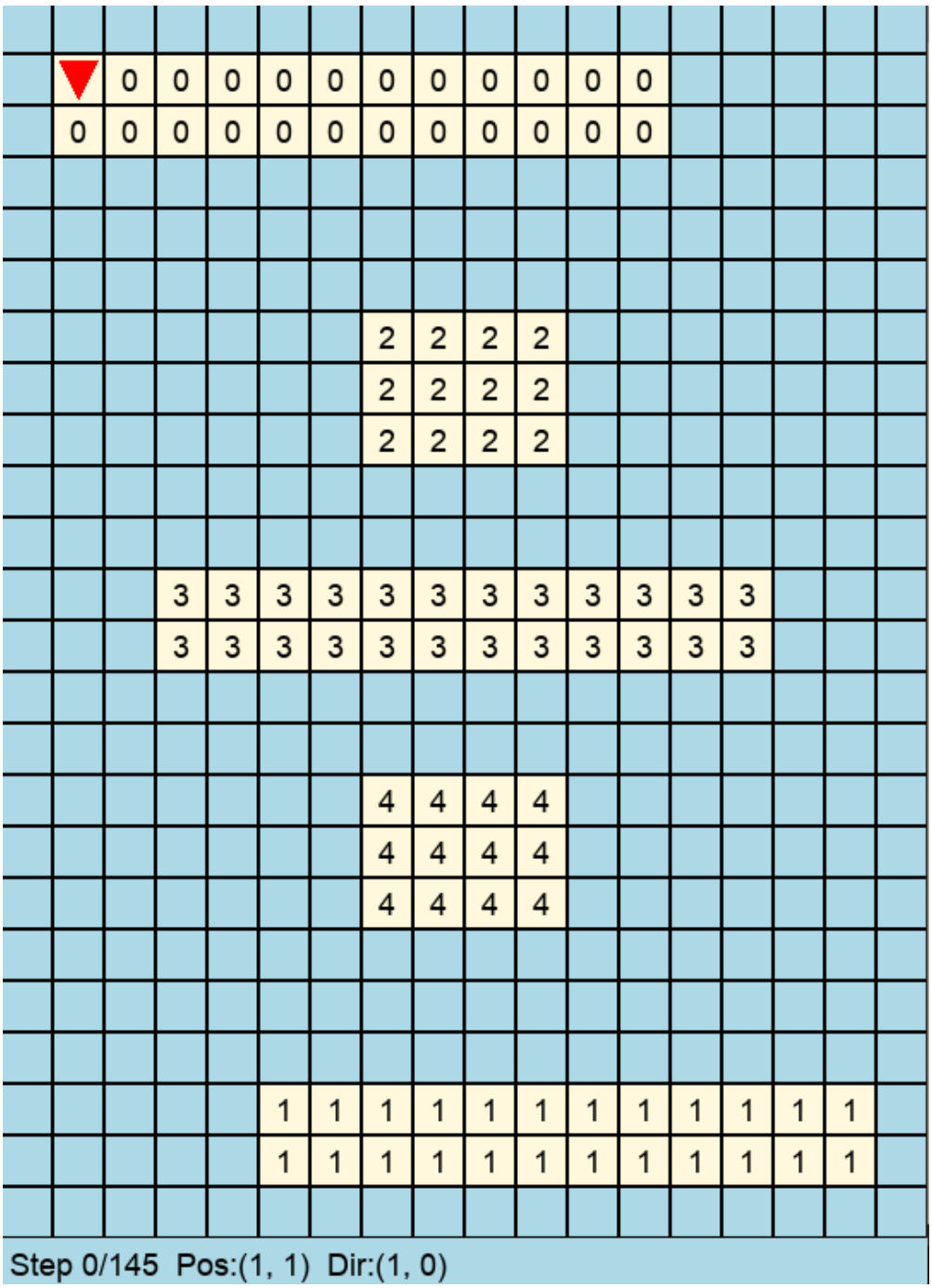


Figure 2: Positive Integer Division (in the shape of a divison sign!)

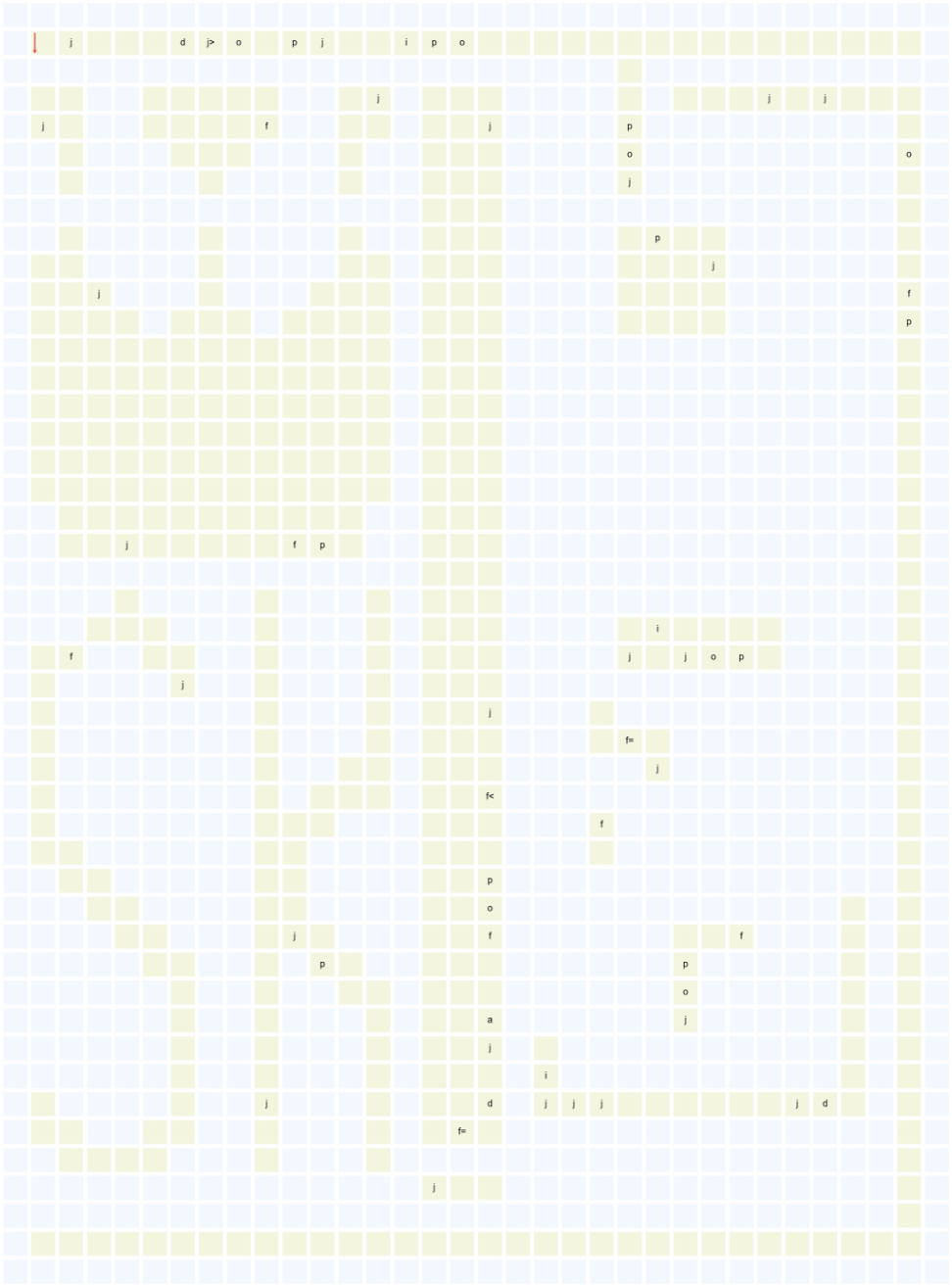


Figure 3: Sorting Algorithm: takes in a stack of integers (positive and negative), and will put the sorted stack at the output island (largest on top). To watch the sorted stack grow, click on the output island of the visualizer. Also if you're curious SK represents my initials lol

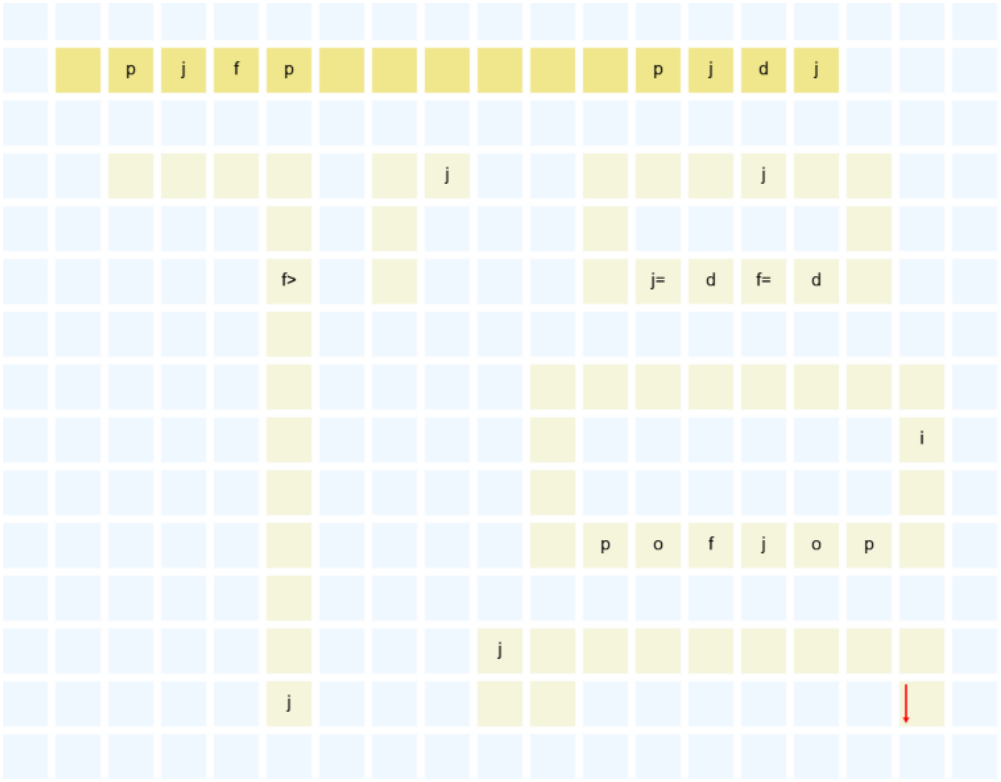


Figure 4: Input a decimal number as the only input and you shall receive its binary representation in the output (read from top to bottom in final stack)

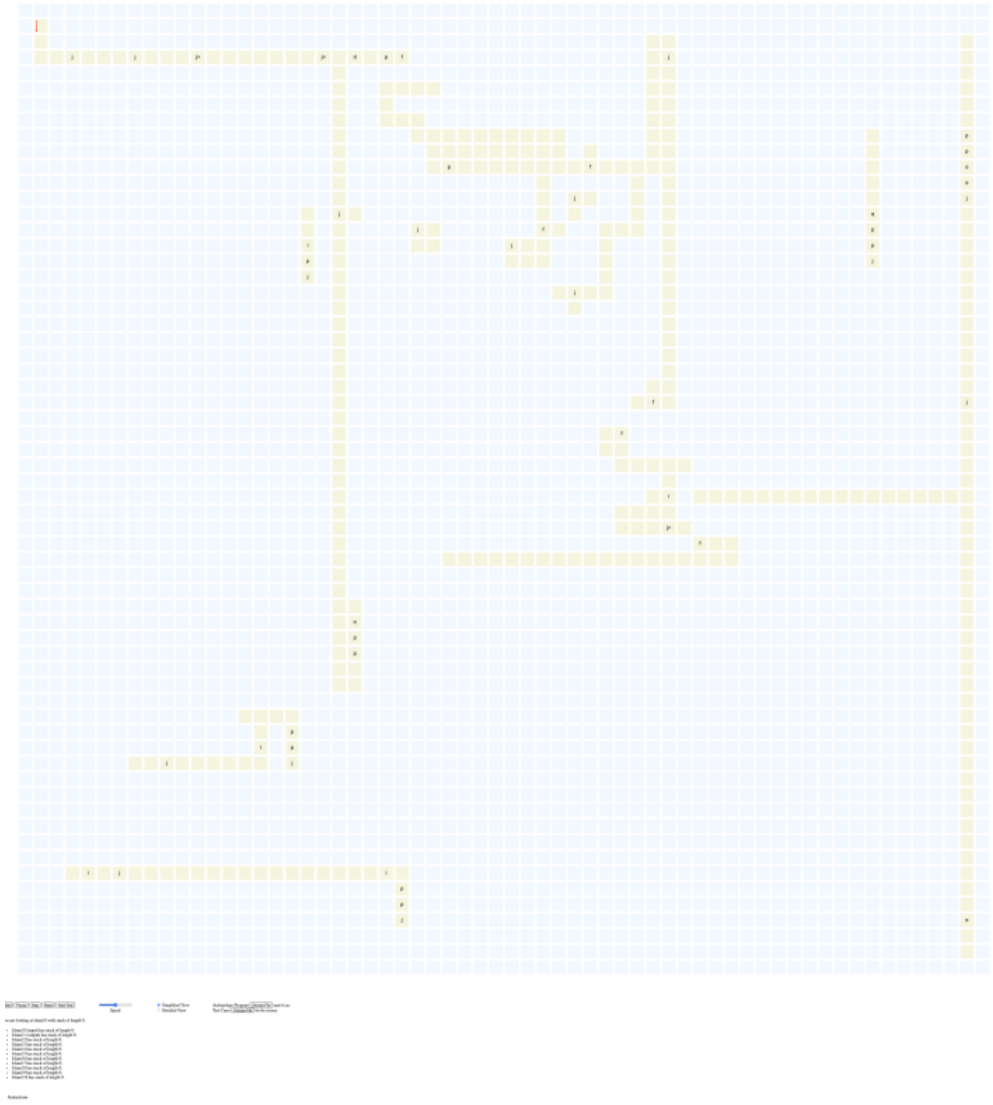


Figure 5: "Our program is designed to compute the value of 2 to the power of x, where x is a non-negative integer. The image of our program when run on the visualizer resembles a monkey that is hanging on a tree :)"

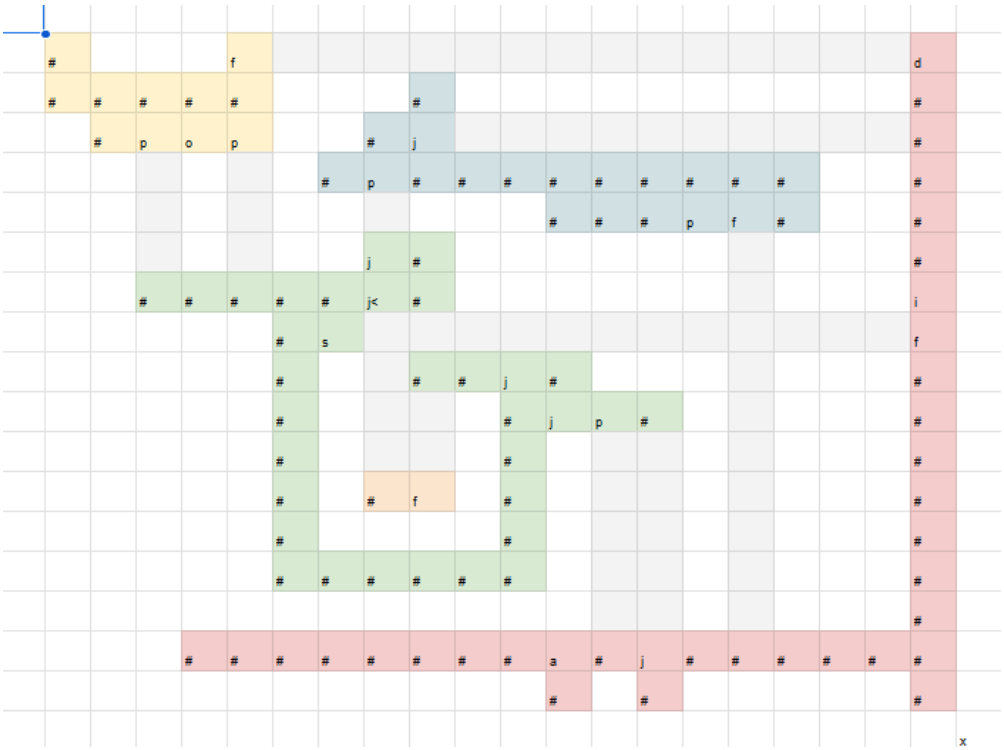


Figure 6: This program calculates integer division with remainder. It takes an input stack of two elements, divisor, dividend, and returns an output stack of two elements, quotient, remainder.

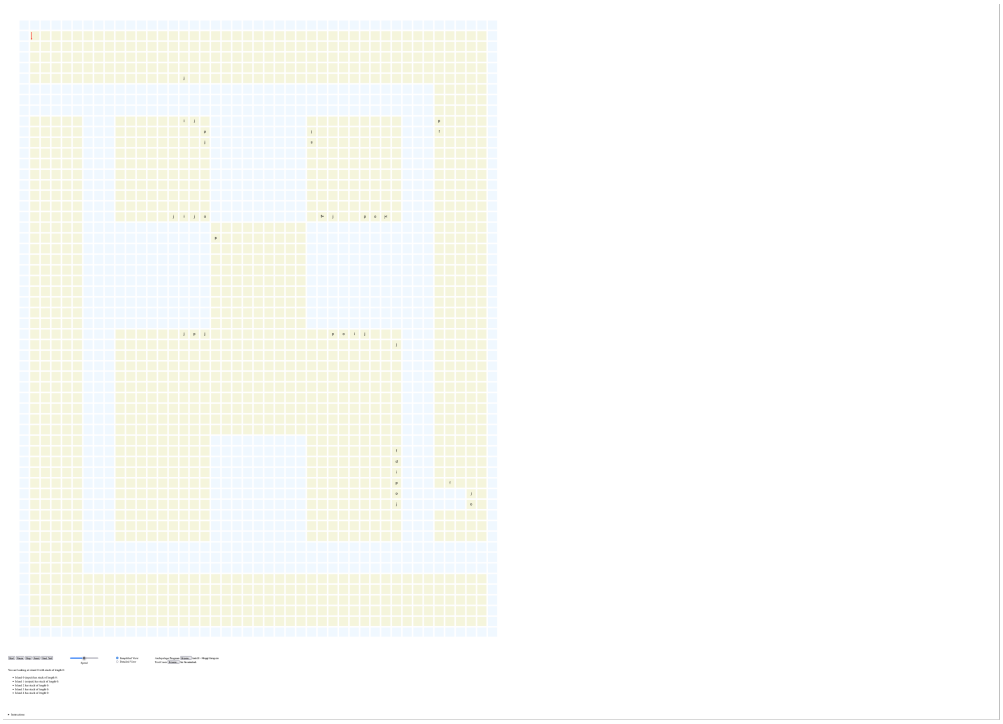


Figure 7: a program to compute factors of number

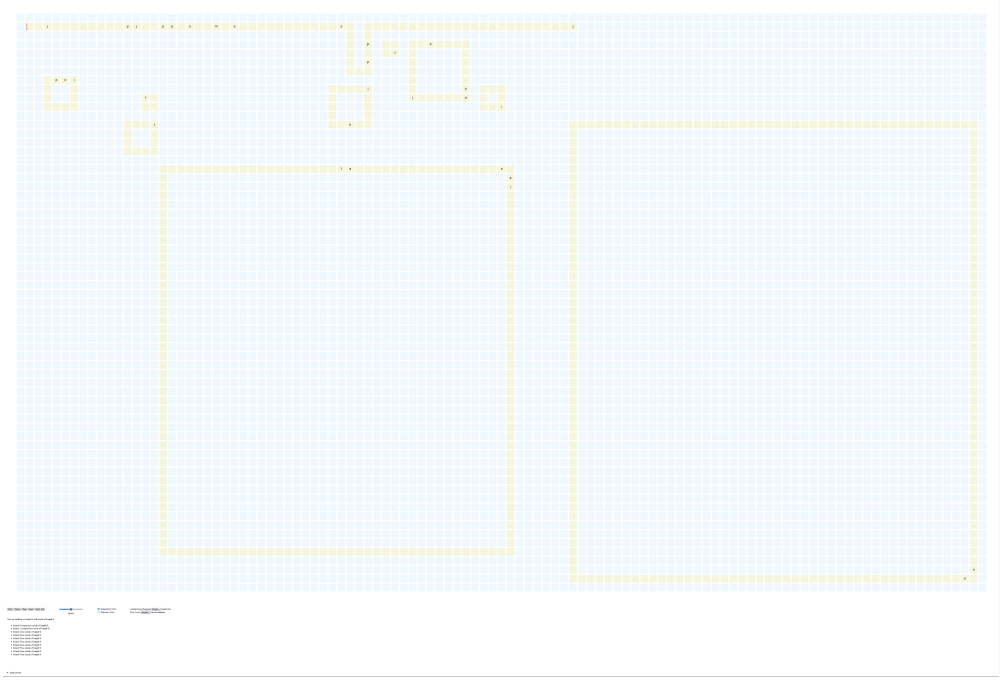


Figure 8: A program that inputs n and outputs 2n (sadly not n^2) that is shaped like (not to scale) squares