In-class Practice 19: TMs as Transducers

Given nonnegative integers m and n, the monus function is defined as $m - n$ is $m \geq n$ and 0 otherwise.

Build a TM for the monus function using unary.

Specifically, the input should be $0^m 1 0^n$ and the output should be 0^x where x is the value of the monus.