

## Putting this together

Given  $X = x_1, x_2, \dots, x_n$ , to find the *length* of the longest increasing substring:

- ▶ For  $i = 1$  up to  $n$  do:
  - ▶ Compute  $M[i]$  using rules from previous slide
- ▶ Return  $\max\{M[1], M[2], M[3], \dots, M[n]\}$

Questions:

1. Why is this correct?
2. What is the running time?
3. This only gives you the length of the longest increasing substring.
4. How do you get the longest increasing substring itself?