

Warmup

- Pretend you are a secret agent and are captured by the evil **Dr. Phil**.
- Dr. Phil likes to play the following game with his prisoners: he picks random numbers from 1 to 100 over and over again. But he always makes sure that every number he picks is bigger than the one that came before. Eventually, he is forced to pick 100, and that's when the secret agent will meet his or her end.
- Write a program to simulate this situation. (*Hint: Use the sliding window technique to remember the random number generated from the time before. Use this number to generate the next one.*) At the end of the simulation (when you generate 100), stop the loop and print the total number of numbers generated. Run this a few times. What is the largest amount of time you can get the agent to stay alive?

