**Problem. Longest Increasing Sequence.**

Write a program that finds the length of the **maximal increasing sequence** in an array of **N** integers.

### **Input**

Read from the standard input

* On the first line you will receive the number **N**
* On the next **N** lines the numbers of the array will be given

### **Output**

Print to the standard output

* Print the length of the **maximal increasing sequence**

### **Constraints**

* 1 <= **N** <= 1024
* Time limit: **0.1s**
* Memory limit: **16MB**

### **Sample tests**

#### **Input**

Copy

8

7

3

2

3

5

2

2

4

#### **Output**

Copy

3