# Problem 2 – Non-Crossing Bridges

You are given a sequence **seq** of integer numbers. Any two equal numbers can be connected by a **bridge**. Your task is to place as many **non-crossing bridges** as possible between the numbers.

Bridges should be **non-crossing**: they **cannot overlap** and **cannot be** **inside one another**. It is allowed, however, that one number is shared between two bridges.

**Valid (non-crossing) bridges:**

Connected bridges: {1, 1}, {7, 7}, {7, 7}

**Invalid bridges (crossing each other):**

Connected bridges: {1, 1}. Bridge {7, 7} is not allowed.

**Invalid bridges (one inside the other):**

Connected bridges: {2, 2}. Bridge {5, 5} is not allowed.

### Input

On the single input line you are given the sequence **seq** holding integers separated by space.

### Output

* If no bridges can be placed in the sequence, print “**No bridges found**” on a single line.
* Otherwise, print “**X bridge(s) found**” on a single line where **X** is the maximal number of bridges. Print “**bridge**” for one bridge and “**bridges**” (plural) for more than one bridge.

### Constraints

* The length of **seq** is in the range **[1 … 10 000]**. All numbers are integers in range [**-100 000 … 100 000**].
* Time limit: **100 ms**. Allowed memory: **16 MB**.

### Sample Input / Output

|  |  |
| --- | --- |
| **Input** | **Output** |
| 7 **3** 4 5 **3** **6** 7 2 4 5 **6** 8 **6** 8 | 3 bridges found  X **3** X X **3** **6** X X X X **6** X **6** X |
| **1** 2 3 **1** 2 3 | 1 bridge found  **1** X X **1** X X |
| 1 2 **3 3** 2 1 | 1 bridge found  X X **3 3** X X |
| 42 3 2 1 | No bridges found |