# B. Company Income Growth

time limit per test: 2 seconds
memory limit per test: 64 megabytes
input: standard input
output: standard output

Petya works as a PR manager for a successful Berland company BerSoft. He needs to prepare a presentation on the company income growth since $2001$ (the year of its founding) till now. Petya knows that in $2001$ the company income amounted to $a_1$ billion bourles, in $2002$ — to $a_2$ billion, ..., and in the current $(2000 + n)$-th year — $a_n$ billion bourles. On the base of the information Petya decided to show in his presentation the linear progress history which is in his opinion perfect. According to a graph Petya has already made, in the first year BerSoft company income must amount to $1$ billion bourles, in the second year — $2$ billion bourles etc., each following year the income increases by $1$ billion bourles. Unfortunately, the real numbers are different from the perfect ones. Among the numbers $a_i$ can even occur negative ones that are a sign of the company's losses in some years. That is why Petya wants to ignore some data, in other words, cross some numbers $a_i$ from the sequence and leave only some subsequence that has perfect growth.

Thus Petya has to choose a sequence of years $y_1, y_2, ..., y_k$,so that in the year $y_1$ the company income amounted to $1$ billion bourles, in the year $y_2$ — $2$ billion bourles etc., in accordance with the perfect growth dynamics. Help him to choose the longest such sequence.

## Input

The first line contains an integer $n$ $(1 \le n \le 100)$. The next line contains $n$ integers $a_i$ ( - $100 \le a_i \le 100$). The number $a_i$ determines the income of BerSoft company in the $(2000 + i)$-th year. The numbers in the line are separated by spaces.

## Output

Output $k$ — the maximum possible length of a perfect sequence. In the next line output the sequence of years $y_1, y_2, ..., y_k$. Separate the numbers by spaces. If the answer is not unique, output any. If no solution exist, output one number $0$.

### Examples

| input |
| --- |
| 10<br>-2 1 1 3 2 3 4 -10 -2 5 |
| **output** |
| 5<br>2002 2005 2006 2007 2010 |

| input |
| --- |
| 3<br>-1 -2 -3 |
| **output** |
| 0 |