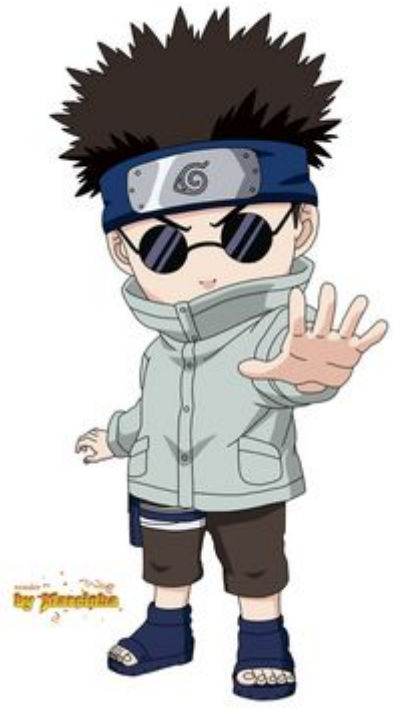
Little Shino and Number of Divisors

Max. Marks: 100

You are given an integer array A of size x denoting the prime powers of an integer N. A_i denotes the power of i^{th} prime in the prime factorization of N. To make it more clear, A_1 will denote the power of 2 in the prime factorization of N, A_2 will denote the power of 3 in the prime factorization of N and so on.

Consider a number P equals to the product of all the divisors of N. You have to find the number of divisors of P. Output it modulo $10^9 + 7$.



Input Format:
The first line contains an integer, x ($1 \leq x \leq 10^6$) denoting the size of array A. Next line contains x space separated integers, denoting the array A ($0 \leq A_i \leq 10^9$).

Output Format:
Print one integer, denoting the number of divisors of P, modulo $10^9 + 7$.

SAMPLE INPUT

```
3
1 1 1
```

SAMPLE OUTPUT

```
125
```

Explanation

$N = 2^1 * 3^1 * 5^1 = 30$

$P = 1 * 2 * 3 * 5 * 6 * 10 * 15 * 30 = 810000$

Number of factors of P is 125

Time Limit:	1.0 sec(s) for each input file.
Memory Limit:	256 MB
Source Limit:	1024 KB
Marking Scheme:	Marks are awarded if any testcase passes.
Allowed Languages:	C, C++, C++14, Clojure, C#, D, Erlang, F#, Go, Groovy, Haskell, Java, Java 8, JavaScript(Rhino), JavaScript(Node.js), Julia, Kotlin, Lisp, Lisp (SBCL), Lua, Objective-C, OCaml, Octave, Pascal, Perl, PHP, Python, Python 3, R(RScript), Racket, Ruby, Rust, Scala, Swift, Visual Basic

CODE EDITOR

Enter your code or Upload your code as file. Save C (gcc 5.4.0)

```c
#include <stdio.h>

int main()
{


    return 0;
}

```

1:1

Provide custom input

Press Ctrl-space for autocomplete suggestions.

COMPILE & TEST SUBMIT

Tip: You can submit any number of times you want. Your best submission is considered for computing total score.

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