

# Insane DFS



Imagine you have a rooted tree consisting of  $n$  vertices. Consider the following function:

```
int order[n]; // initially consists of -1
int pointer = 0;
void dfs(int vertex, int depth) {
    order[pointer] = depth;
    pointer++;
    for each child of vertex
        dfs(child, depth + 1);
}
```

In the end this function produces an array *order*[]. We will call an array *suitable* if and only if it can be produced as a result of running *dfs(root, 0)* on a rooted tree with  $n$  vertices.

You are given an array  $a$ , whose elements are either question signs or integer numbers. How many suitable arrays can you get, if you are allowed to replace any question sign with non-negative integer number? Print this number modulo  $10^9 + 7$ .

## Input Format

The first line contains a single integer  $n$ , that is the size of array  $a$ . The next line contains  $n$  elements of the array:  $a[0], a[1], \dots, a[n-1]$ . Each element is either a question sign, or a non-negative integer number which doesn't exceed 200.

## Constraints

$$1 \leq n \leq 10^5$$
$$0 \leq a[i] \leq 200$$

## Output Format

Print a single integer — the number of suitable arrays you can get modulo  $10^9 + 7$ .

## Sample Input #0

```
3
? ? ?
```

## Sample Output #0

```
2
```

## Sample Input #1

```
2
1 ?
```

## Sample Output #1

```
0
```

## Sample Input #2

```
4
0 ? 1 ?
```

## Sample Output #2

2

## Explanation

In **sample#0** there are two possible arrays: [0, 1, 2] and [0, 1, 1];

In **sample#1** there cannot be any suitable arrays, because each of them starts with 0.