One day, Wet Shark was given an array $X = \{x_1, x_2, \ldots, x_m\}$. As always, he started playing with its subsequences.

When you came to know about this habit, you presented him a task of finding all pairs of subsequences, $(A, B)$, which satisfies all of the following constraints. We will represent a pair of subsequence as $A = \{x_{a_1}, x_{a_2}, \ldots, x_{a_n}\}$ and $B = \{x_{b_1}, x_{b_2}, \ldots, x_{b_n}\}$

- $A$ and $B$ must be of same length, i.e., $|A| = |B|$.
- $\sum_{i=1}^{n}(x_{a_i} + x_{b_i}) = r$
- $\sum_{i=1}^{n}(x_{a_i} - x_{b_i}) = s$

Please help Wet Shark determine how many possible subsequences $A$ and $B$ can exist. Because the number of choices may be big, output your answer modulo $10^9 + 7 = 1000000007$.

*Note:*

- Two segments are different if there's exists at least one index $i$ such that element $x_i$ is present in exactly one of them.
- Both subsequences can overlap each other.
- Subsequences do not necessarily have to be distinct

**Input Format**

The first line consists of 3 space-separated integers $m, r, s$, where $m$ denotes the length of the original array, $X$, and $r$ and $s$ are as defined above.
The next line contains $m$ space-separated integers, $x_1, x_2, \ldots, x_m$ , representing the elements of $X$.

**Constraints**

- $1 \leq m \leq 100$
- $0 \leq r,\ s \leq 2000$
- $1 \leq x_i \leq 2000$

**Output Format**

Output total number of pairs of subsequences, $(A, B)$, satisfying the above conditions. As the number can be large, output it's modulo $10^9 + 7 = 1000000007$

**Sample Input 0**

```
4 5 3
1 1 1 4
```

**Sample Output 0**

```
3
```

**Explanation 0**

For array $X = \{x_1, x_2, x_3, x_4\} = \{1, 1, 1, 4\}$ there are three pairs of subsequences:

1. $A = \{x_4\} = \{4\}; B = \{x_1\} = \{1\}$
2. $A = \{x_4\} = \{4\}; B = \{x_2\} = \{1\}$
3. $A = \{x_4\} = \{4\}; B = \{x_3\} = \{1\}$