Problem G. Matryoshka Doll

Input file:	`standard input`
Output file:	`standard output`
Time limit:	2.5 seconds
Memory limit:	512 megabytes

`zyb` bought n matryoshka dolls during his visit to Moscow, with sizes $a_1, a_2, \ldots, a_n$, respectively, **sorting from smallest to largest**.

A matryoshka of size i can be put into another matryoshka of size j iff $j - i \geq r$, where r is some given integer parameter.

`zyb` wishes to divide all n matryoshka dolls into k groups, such that one can form a **nested** matryoshka doll in each group, where a group of matryoshka dolls with indices $c_1, c_2, ..., c_m$ $(1 \leq c_1 < c_2 < ... < c_m \leq n)$ can form a **nested** matryoshka doll iff $\forall 1 \leq i < m, a_{c_i} + r \leq a_{c_{i+1}}$.

`zyb` wants to know how many ways there are to divide the n dolls into k groups satisfying the requirement above. Note that divisions such as $\{\{1,2\},\{3,4\}\}$ and $\{\{3,4\},\{1,2\}\}$ are considered the same way. As the answer may be too large, you only need to output the answer modulo 998244353.

Input

The first line contains an integer $T(1 \leq T \leq 20)$ denote the number of testcases.

For each test case, the first line of the input contains three integers $n, k, r(1 \leq k \leq n \leq 5000, 1 \leq r \leq 10^9)$, denoting the number of matryoshka dolls, the number of groups `zyb` wants to divide into, and the parameter, respectively.

The next line contains n integers $a_1, a_2, \ldots, a_n(1 \leq a_1 \leq a_2 \leq ... \leq a_n \leq 10^9)$, denoting the sizes of the matryoshka dolls.

It is guaranteed that $\sum n \leq 50000$ over all test cases.

Output

For each test case, output an integer in a line, denoting the answer taken modulo 998244353.

Example

standard input	standard output
2 4 3 2 1 2 3 4 4 2 1 1 1 2 2	3 2