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```
#include <iostream>
#include <vector>
using namespace std;
typedef vector<int> vec;
typedef vector<vec> vec2;
typedef vector<vec2> vec3;
const int MEMO_INIT = -1;
vec v;
vec3 memo;
int f(int i, int j, int t, int m, int k) {
    int turn = t % m;
         // Base case, i = j
         if (i == j) {
                  if (turn == k) return v[i];
                   else return 0;
         }
         // Check memo
         if (memo[i][j][turn == k] != MEMO_INIT) return memo[i][j][turn == k];
         // Reccurence
         int result = MEMO_INIT;
         if (turn == k) {
                  int take_first = v[i] + f(i+1, j, t+1, m, k);
int take_last = v[j] + f(i, j-1, t+1, m, k);
                   result = max(take_first, take_last);
         } else {
                   int take_first = f(i+1, j, t+1, m, k);
                   int take_last = f(i, j-1, t+1, m, k);
result = min(take_first, take_last);
         // Save in memo (just for fun ya know, meybe we will need it again)
         memo[i][j][turn == k] = result;
         return result;
}
void testcase() {
    int n, m, k; cin >> n >> m >> k;
         v = vec(n);
         for (int i = 0; i < n; i++) {
                  cin >> v[i];
         memo = vec3(n, vec2(n, vec(2, MEMO_INIT)));
         cout << f(0, n - 1, 0, m, k) << endl;
}
int main() {
         ios::sync_with_stdio(false);
         int t; cin >> t;
         while (t--) testcase();
         return 0;
}
```