

```
1 //
2 // There is a set A = {a_1, a_2 ...} consisting of N positive integers.
3 // Taro and Jiro will play the following game against each other.
4 // Initially, we have a pile consisting of K stones.
5 // The two players perform the following operation alternately, starting from Taro:
6 //   - Choose an element x in A, and remove exactly x stones from the pile.
7 // A player loses when he becomes unable to play.
8 //
9 // Assuming that both players play optimally, determine the winner.
10 // Time Complexity: O(NK)
11 //
12
13 #include <bits/stdc++.h>
14 #define ll long long
15
16 using namespace std;
17
18 inline void umin(int& a, int b) { a = min(a, b); }
19 inline void umax(int& a, int b) { a = max(a, b); }
20
21 int main() {
22     int n, k;
23     cin >> n >> k;
24
25     vector<int> a(n);
26     for (int i = 0; i < n; i++) cin >> a[i];
27
28     vector<vector<int>> dp(k+1, vector<int>({ 1000, -1000 }));
29     // player 0 wants to minimize
30     // player 1 wants to maximize
31
32     for (int i = 0; i ≤ k; i++) {
33         for (int j = 0; j < n; j++) {
34             if (i - a[j] < 0) {
35                 umin(dp[i][0], 1);
36                 umax(dp[i][1], 0);
37             } else {
38                 umin(dp[i][0], dp[i-a[j]][1]);
39                 umax(dp[i][1], dp[i-a[j]][0]);
40             }
41         }
42     }
43
44     cout << (dp[k][0] ? "Second" : "First") << endl;
45     return 0;
46 }
```