We first construct a corresponding flow network with square 0 as the source and square n as the sink. For every i from 0 to $n-1$, connect every square i with squares $i+1, i+2, \ldots\ldots, i+k$ with a directed edge of infinite capacity. Since $A[i]$ limit the maximum number of children who can jump on square i, each vertex i has capacity $C(A[i])$. We reduce the case by splitting each vertex i into two vertices i_{in} and i_{out} with an edge of capacity $A[i]$ connected. We now run the Edmons-Karp algorithm to find the maximal flow through such a network. The max flow is the largest number of children who can successfully complete the game.

Time complexity: Constructing a network and running the Edmons-Karp algorithm $= O(|V||E|^2) = O\left(|2n| \left|\frac{k^2+k}{2} + nk - k^2 + n - 1\right|^2\right) = O(n^3k^2 + nk^4)$