

EDITORIAL

Codeforces:-Valera and Fools(369D)

[Problem Link](#)

Prerequisite - Dfs , shortest paths.

Let's $p[A]$ is the pA from the statement.

It's clear to understand that you can describe the state by using pair of integers (A, B) , where A is a number of the fool with smallest index, B — the second fool from the left. It is clear to understand that fool with indexes $j \geq B$ will be living. After that we will use bfs on the states (A, B) .

State $(0, 1)$ is always visitable, because it is initial. We will push it in the queue. After that, there are only three transitions from current state (A, B) .

1. $(B + 1, B + 2)$ — this transition is possible if and only if $p[A] > 0$ and there are some fool with index $j \geq B$, which has non-zero value $p[j] > 0$.
2. $(A, B + 1)$ — this transition is possible if and only if $p[A] > 0$ и there are no fool with index $j \geq B$, which has $p[j] = 100$.
3. $(B, B + 1)$ — this transition is possible if and only if $p[A] \neq 100$ and there are some fool with index $j \geq B$, which has non-zero value $p[j] > 0$.

After that you are to determine number of states, which has distance from state $(0, 1)$ less or equal to k (*as this state can be achievable in k round or not*). Also you should be careful, that if there are only one fool, that he doesn't shot.

Author's Code:- [Coded by Enigma27](#)