Problem K. Thanksgiving

Source file name:	Thanksgiving.c, Thanksgiving.cpp, Thanksgiving.java, Thanksgiving.py
Input:	Standard
Output:	Standard

You live in a small town off the beaten track. So far from civilization, people talk and gossip spreads like a wildfire. When Mark hears something new, he tells it to Amy, Amy tells it to Natalia, Natalia tells it to you, and you are always surprised when Amy already knows the good stuff that you are trying to tell her. In general, everyone has someone they trust and tell every minute detail about the weight of Berta's cat, the chaos in the town hall after thanksgiving, and the paltry harvest this year. Only Bert keeps to himself. If only you knew how many people hear the gossip you tell Amy, maybe you would reconsider and be more like Bert.
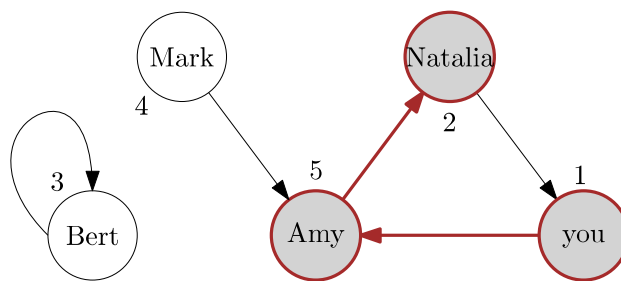

Figure 5. Illustration of Example Input 2 with the characters from the story. If you speak to Amy, then Amy, Natalia, and you will know the gossip. Thus, the answer is 3.

Input

The input consists of:

- One line with an integer n ($1 \leq n \leq 1000$), the number of people.

- One line with n integers $p_1, \ldots, p_n$ ($1 \leq p_i \leq n$), meaning person i tells their gossip to person p_i.

See Figure 5 for an example.

Output

Output the number of people that will hear your gossip. You are person number 1 and you always count yourself towards the answer.

Example

Input	Output
3 3 1 1	2
5 5 1 3 5 2	3
4 2 3 4 4	4