Problem B. Takahashi's Secret

Time limit 2000 ms
Mem limit 1048576 kB

Problem Statement

Takahashi has N friends. They have nicknames: Friend 1, Friend 2, . . ., Friend N.

One day, Takahashi accidentally let one of his friends, Friend X, learn his shameful secret. For each $i = 1, 2, \ldots, N$, when Friend i learns the secret, he/she will share it with Friend A_i, if Friend A_i has not already learned it.

How many of Takahashi's friends will learn the secret in the end?

Constraints

- $2 \leq N \leq 10^5$
- $1 \leq X \leq N$
- $1 \leq A_i \leq N$
- $A_i \neq i$
- All values in input are integers.

Input

Input is given from Standard Input in the following format:

N X
A_1 A_2 $\cdots$ A_N

Output

Print the answer.

Sample 1

Input	Output
4 2 3 1 1 2	3

Takahashi's secret will be learned by Friend 1, Friend 2, and Friend 3, as follows.

- One day, Takahashi let Friend 2 learn the secret.
- Friend 2 shares it with Friend 1.
- Friend 1 shares it with Friend 3.

In the end, three of his friends learn the secret, so we print 3.

Sample 2

Input	Output
20 12 7 11 10 1 7 20 14 2 17 3 2 5 19 20 8 14 18 2 10 10	7