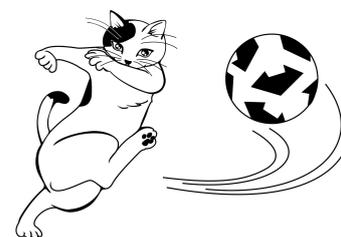


## F Feline Friendship

Time limit: 2s

There is a big community of  $n$  cats in Delft. The cats are numbered from 1 to  $n$ . Each cat has a favourite playing partner,  $p_i$  (cats can be very egocentric, so  $p_i = i$  is allowed). It turns out that no two cats share the same favourite playing partner, so the  $p_i$  are distinct.

You are organising a big game of Cats versus Coatis football<sup>1</sup>, for which you will need exactly  $k$  cats in a team.



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To get  $k$  cats to join your game, you appoint one cat as team captain. Then the following process is repeated, starting with the team captain cat. A cat  $i$  selects its favourite playing partner  $p_i$ , adding  $p_i$  to the team. Subsequently, cat  $p_i$  will select its favourite playing partner, adding  $p_{p_i}$  to the team, and so on. The process only stops when a cat tries to invite a cat that is already on the team. If, for some choice of the team captain, the number of cats in the team is exactly  $k$ , the game can be played.

Sometimes, it is not possible to find a team of  $k$  cats in this way. Therefore, you have decided to convince some cats to change their favourite playing partner. Formally, you repeatedly select a cat  $i$  ( $1 \leq i \leq n$ ) and choose an  $x$  ( $1 \leq x \leq n$ ) and update the playing partner  $p_i := x$ . After the change, it can be the case that  $p_1, p_2, p_3, \dots, p_n$  are no longer distinct, but that is fine.

What is the minimum number of times you need to convince a cat to change their favourite playing partner, such that the football game can be played?

### Input

The input consists of:

- One line with two integers,  $n$  and  $k$  ( $1 \leq n \leq 2 \cdot 10^5$ ,  $1 \leq k \leq n$ ), the number of cats and the team size for the football game.
- One line with  $n$  integers,  $p_1, p_2, \dots, p_n$  ( $1 \leq p_i \leq n$ ), where the  $i$ th integer is the favourite playing partner of cat  $i$ .

It is guaranteed that the  $p_i$  are all distinct.

### Output

Output the minimum number of times you need to convince a cat to change their favourite playing partner, such that the football game can be played.

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<sup>1</sup>Non-American.

**Sample Input 1**

```
2 1
2 1
```

**Sample Output 1**

```
1
```

**Sample Input 2**

```
5 5
3 4 1 2 5
```

**Sample Output 2**

```
2
```