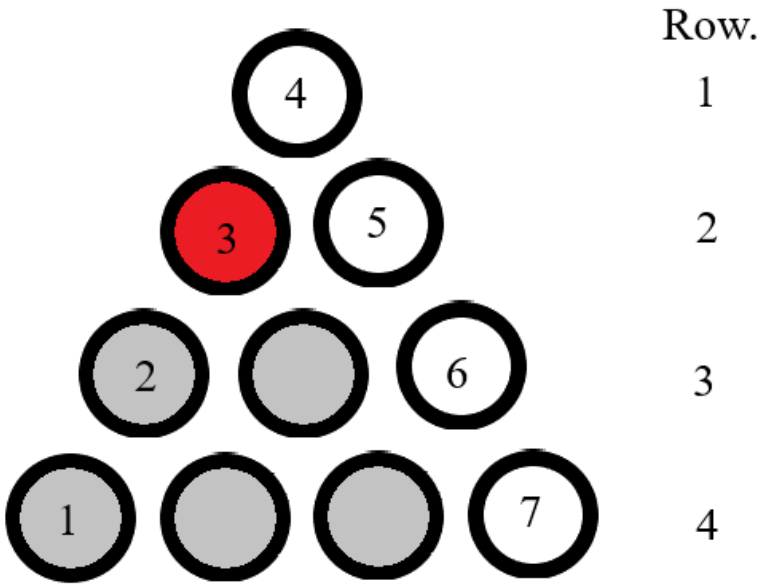
The Bowling Alley

At Edward's Bowling Alley, there is a special game: many-pin bowling! Bored of your typical 1 pin bowling, you venture here to try your own hand at it. Edward's bowling alley follows very special rules - any pin that is knocked over is $guaranteed$ to knock over the 2 pins behind it. An example is shown here:



When pin 3 is hit, it will knock over all the pins behind it, shown in gray. The shown pin arrangement is of size 4.

Given a pin layout and a list of ball throws, calculate the amount of pins that are knocked down.

Input Format

2 space separated integers, N and S, representing the number of ball throws and the size of the pin layout. The layout given in the example is size 4.

N space seperated integers, K_1, K_2, ..., $K_N - 1$, K_N, each representing a ball thrown towards the front pin indicated by K_i.

Constraints

$1 \leq N \leq 20$

$1 \leq S \leq 50$

$1 \leq K_i \leq 2S - 1$

Output Format

An integer, P, representing the total number of pins that were knocked down.

Sample Input 0

```
1 4
3
```

Sample Output 0

```
6
```

Explanation 0

This is the case specified by the problem statement.

Sample Input 1

```
5 6
2 4 10 7 9
```

Sample Output 1

```
19
```

Explanation 1