2618 - Ferrets

Description

A ferrets are passionate about playing with food. When they cannot entertain finger biting its owner, have fun accumulating its k hash n feeders in their favorite hiding places. Our ferret, which is something methodical, does the following process: for each room, and whenever there is in it n croquettes or more, divided (one to one) among his n croquettes hideouts. The remaining croquettes eats, to refuel.

It asks you to calculate how many croquettes end having at each hideout, assuming that start with food eaters, and caches start empty.

Input specification

The input contains two lines. The first line contains space-separated numbers k and n of feeding and hiding (there's always at least one of each, n, k <= 2000, each feeder has, at most, 10 ^ 6 croquettes). The second line contains exactly k positive numbers, with the number of hash there in the beginning in each trough.

Output specification

A single number describing the number of hash that will be in each shelter after the ferret has distributed all the food.

Sample input

```
1 1
897
```

Sample output

```
897
```

Hint(s)

Source	José Nolberto Isac González
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Addition date	2013-11-11
Time limit (ms)	10000
Test limit (ms)	1000
Memory limit (kb)	130000
Output limit (mb)	64
Size limit (bytes)	15000
Enabled languages	Bash C C# C++ Java Pascal Perl PHP Python Ruby Text