CCSC:MW Programming Competition

Coffee College

Coffee College holds admissions events where prospective students and their families come to visit campus. Groups of families are scheduled to come at different times so that admissions is not overwhelmed with everyone at once.

Obviously there is coffee served at these events. The coffee is brewed in pots, and each pot holds 12 cups (or 96 ounces). Their coffee machine brews full pots, and is not capable of brewing partial pots.

The admissions staff brews a number of pots of coffee at the beginning of an event day. Between each group of families, the remaining coffee is poured into as few pots as possible, and fresh coffee is brewed to fill all of the empty pots. After the last group, the remaining coffee is discarded.

Your task is to write a program that, given the number of pots and the number of ounces of coffee consumed by each group, determines how much coffee is discarded a the end of the day.

For example, say there are 2 groups and 3 pots. The first group drinks 180 ounces of coffee, and when they leave there are 108 ounces of coffee remaining (3 pots is 288 ounces minus 180 ounces consumed). The remaining coffee is all poured into 2 of the pots, and the 1 empty pot is brewed for the next group (brining the total ounces up to 204). The second group then drinks 200 ounces and there are 4 ounces remaining at the end of the event.

Input

The first line of input contains the number of groups n and the number of pots m, separated by a space. This is followed by n lines, each of which contains the number of ounces consumed by a group. All quantities are positive integers less than 10,000.

Output

Your output should be a single integer representing the number of ounces remaining after all groups.

Example 1

Input:

```
2 3
180
200
```

Output:

```
4
```

Example 2

Input:

```
5 4
355
298
216
195
123
```

Output:

```
253
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