

Long calculations

SEASON 6 – ROUND TWO – 100 points



CodeIT made Ivancho so famous that he has his own fan club. Now he wants to give his fans chocolates. For this purpose he has provided N types of chocolates and from type i ($1 \leq i \leq N$) there are A_i chocolates.

Ivancho does not want to convey sense of injustice to his fans, so he wants every member of the fan club to receive an equal number of chocolates (the type of the chocolates does not matter).

Unfortunately, our friend does not know the number of his fans, but he knows the number of all his classmates – M (each of his fans is also his classmate).

Now Ivancho wants to make a list of the possible number of fans in his club for which he could manage to come up with a just sharing (he wants to give away all his chocolates). He asks you to save him the long calculations by writing a program which answers this question.

Notice: Ivancho is guaranteed to have at least one fan (would be sad otherwise).

Input

The first line of the input file `long.in` contains the integers N and M , the second line contains N integers A_i .

Output

In the output file `long.out` write a list of the possible values in a single line, in ascending order, separated by spaces.

Constraints

$$1 \leq N \leq 10^5$$

$$1 \leq M \leq 100$$

$$0 \leq A_i < 10^{18}$$

Time limit: 1.5 sec

Memory limit: 256 MB

Example

Input (<code>long.in</code>)	Output (<code>long.out</code>)
10 60 1 2 3 4 5 6 7 8 9 10	1 5 11 55