Problem D. Daycare Children

Input file:	*standard input*
Output file:	*standard output*
Time limit:	1 second
Memory limit:	64 mebibytes

Sophie works at a daycare. There are n children in her group, each one should be given a set of at least k toys of different kinds–the children do not have preferences of toy kinds nor of toys of the same kind. Toys come in $\left\lfloor \frac{3k^2}{2} \right\rfloor$ different kinds and Sophie has access to unlimited supply of toys of each kind. Children like to play in pairs and for a pair of children to be able to play together, there has to be exactly one kind of toys such that both of them have a toy of this kind; otherwise either they have different kinds of toys and it is hard for them to play or they have a choice and they feel confused. Moreover, each child wants to be special and so no two children can have the same set of toy kinds. Help Sophie in her work: write a program which computes for each child its set of toy kinds, so that each pair of children can play together.

Input

First line of the input consists of two space-separated positive integers n and k ($1 \le n \le \binom{k}{2}$, $2 \le k \le 50$).

Output

You should write n lines to the output. The i-th line should begin with a natural number k_i: the number of toys that the i-th child gets, a single space and then a sequence of k_i pairwise different toy kinds–that is, natural numbers from the set $\{1, 2, \ldots, \lfloor \frac{3k^2}{2} \rfloor\}$, separated by cpaces

Example

standard input	standard output
3 3	4 10 1 2 13 3 1 3 4 6 1 5 6 7 8 9
5 4	4 1 2 3 13 4 1 4 7 10 4 4 5 6 13 4 7 8 9 13 4 10 11 12 13

Note

In first sample there are three children, each should be given at least three toys out of total $\left\lfloor \frac{3 \cdot 3^2}{2} \right\rfloor = 13$ toy kinds: $1, 2, \ldots, 13$. In the given solution each pair of children has a toy of kind 1 in common (and no other).

In second sample there are five children and each is to be given at least four different toy kinds, the toys come in $\left\lfloor \frac{3 \cdot 4^2}{2} \right\rfloor = 24$ kinds: $1, 2, \ldots, 24$. In the given solution the pairs of children that do not include the second child have the toy 13 in common, the pairs of the second child and, respectively, first, third, fourth, and fifth child have a common toy of the kind: $1, 4, 7, 10$, respectively.