Multisets (4) P14098_en

Write a program that, given four natural numbers n, x, y and t, prints all the multisets with t numbers that can be made up with $\{1, \ldots, n\}$, in such a way that every number appears between x and y times.

Input

Input consists of a natural number $n > 0$, followed by a natural number $x \geq 0$, followed by a natural number $y > x$, followed by a natural number $t \geq 0$. Assume $nx \leq t \leq ny$.

Output

Print all the multisets of size t that can be made up with $\{1, \ldots, n\}$, using each number between x and y times. The numbers inside each multiset must appear in non-decreasing order.

Information about the checker

You can print the solutions to this exercise in any order.

Sample input 1

```
3 1 4 6
```

Sample output 1

```
{1,2,3,3,3,3}
{1,2,2,3,3,3}
{1,2,2,2,3,3}
{1,2,2,2,2,3}
{1,1,2,3,3,3}
{1,1,2,2,3,3}
{1,1,2,2,2,3}
{1,1,1,2,3,3}
{1,1,1,2,2,3}
{1,1,1,1,2,3}
```

Problem information

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