**Algorithms with Java: Exam 28-06-2020**

This document defines the exam for ["Algorithms – Fundamentals (Java)" course @ Software University](https://softuni.bg/trainings/2991/algorithms-fundamentals-with-java-may-2020). Please submit your solutions (source code) of all below described problems in [Judge](https://judge.softuni.bg/Contests/2484/Algorithms-Fundamentals-with-Java-Exam-28-June-2020).

1. **Alpha Decay**

*There is something radioactive around those Greek letters Alpha, Beta and Gama, however letters are not known radioactive emitters. The real emitters are the heavy elements, approximately 99% of the helium produced on Earth is the result of the alpha decay of underground deposits of minerals containing uranium or thorium.*

You are part of the **"no-real-science-team"** and you are the computer specialist, you will be given data collected after the alpha decay of some heavy elements **N** where **each value** is the resulting nucleus after the alpha decay of some heavier nucleus **represented by a single integer.**

Your head theoretical physicist wants to see if there are any patterns in the resulting nucleus, however after doing some calculations the theorist have claimed that the **only** **number** of results worth looking at is **K** of those **N** nucleus at a time.

Here comes your task you need to take those **N** nucleus and print **all the possible** ways that they can be observed as a **sequence of K nucleus**, **without using the same nucleus twice**.

## Input

* The input will come from the console on two lines.
* First line will be the resulting nucleus after the alpha decay **N** as a sequence of integers separated by spaces.
* On the second line a single integer **K** the count of integers the physicist wants to observe at the same time.

## Output

* The output is each possible way to observe **K** nucleus out of **N** on a new line where each nucleus is separated by a single space.

## Constraints

* **N** will be in the range **[3…10]** where **K** will always be less than **N**.
* The nucleus numbers **will** be **unique**.

## Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| 234 232 230  2 | 234 232  234 230  232 234  232 230  230 234  230 232 |
| 109 113 234 232  3 | 109 113 234  109 113 232  109 234 113  109 234 232  109 232 113  109 232 234  113 109 234  113 109 232  113 234 109  113 234 232  113 232 109  113 232 234  234 109 113  234 109 232  234 113 109  234 113 232  234 232 109  234 232 113  232 109 113  232 109 234  232 113 109  232 113 234  232 234 109  232 234 113 |

*“I... a universe of atoms, an atom in the universe.”*

*― Richard P. Feynman*