Lab: Functions Advanced

Problems for in-class lab for the Python Advanced Course @SoftUni. Submit your solutions in the SoftUni judge system at https://judge.softuni.bg/Contests/1838

1. Multiplication Function

Write a function **called multiply** that can receive any amount of numbers as different parameters and returns the result of the multiplication of all of them. Submit **only your function** in judge.

Examples

Test Code	Output

`print(multiply(1, 4, 5))`
`print(multiply(4, 5, 6, 1, 3))`
`print(multiply(2, 0, 1000, 5000))`
	`20`
	`360`
	`0`

2. Operate

Write a function **called `operate`** that receives an operator as the first argument and multiple numbers as the other arguments (**`*args`**). The function should return the result of the operator applied to all of the numbers. For more clarification, see the examples below. Submit **only the function** in the judge system.

Examples

Test Code	Output	Comment
`print(operate("+", 1, 2, 3))`	`6`	`1 + 2 + 3 = 6`
`print(operate("*", 3, 4))`	`12`	`3 * 4 = 12`

3. Concatenate

Write a function called **`concatenate()`** that receives some strings, concatenates them and returns the result

Examples

Test Code	Output
`print(concatenate("Soft", "Uni", "Is", "Great", "!"))`	`SoftUniIsGreat!`

4. Person Info

Write a function **called `get_info`** that receives a **name**, **age** and **town**, and returns a string in the format: **`"This is {name} from {town} and he is {age} years old"`**. Use dictionary unpacking when testing your function. Submit **only the function** in the judge system.

Examples

Test Code	Output
`print(get_info(**{"name": "George", "town": "Sofia", "age": 20}))`	`This is George from Sofia and he is 20 years old`

5. Character Combinations

Write a program that reads a **single string** and prints **all the possible combinations** of the **characters** in that string. Submit your solution in the judge system.

Examples

Input	Output
abc	abc acb bac bca cba cab

6. Chairs

Write a program that receives **names** on the first line (separated by comma and space **", "**) and number of **chairs** on the second line (an **integer**). Find all the ways to fit those people on the chairs. Print each combination on a separate line.

Note: In the example below, "Peter, George" is same as "George, Peter", so we only print the first combination

Examples

Input	Output
Peter, George, Amy 2	Peter, George Peter, Amy George, Amy