Problem 2. Command Center

Input / Constraints

You will be given a **single lines of elements**(integers), **separated** with **one or more spaces**. After that you will receive lines with different commands. You must execute them until you receive command "END". The commands would be the following:

- If you receive **{multiply} {list} {n}** – you must multiply the list n times
- If you receive **{multiply} {element} {n}** you must multiply all elements in the list that are equal to the given element by n
- **{contains} {element}** – you must print "**True**" or "**False**", depending on that either element exists in the list or not.
- **{add} {n}** – you should add n, where n could be **a single integer** OR another **list of integers** (if n is a list it would be separated by ',')

Output

After you receive the command "END" you should print every element in ASCENDING order, elements should be separadet by space

Examples

Input	Output	Comments

1 2 3 4 5 6
multiply list 3
multiply 8 3
contains 3
contains 8
add 5,23
add 8
END
	True
	False
	1 1 1 2 2 2 3 3 3 4 4 4 5 5 5 6 6 6 8 23
		123456123456123456
		The list elements are the same, because 8 is not a list's element - 123456123456
		3 is a list element
		8 is not presented in the list
		  1, 2, 3, 4, 5, 6, 1, 2, 3, 4, 5, 6, 1, 2, 3, 4, 5, 6, 5, 23
		  1, 2, 3, 4, 5, 6, 1, 2, 3, 4, 5, 6, 1, 2, 3, 4, 5, 6, 5, 23, 8

Input	**Output**	**Comments**
1 2 3 4 5 6 multiply list 2 multiply 3 3 END	1 1 2 2 4 4 5 5 6 6 9 9	