

2688 - Numerical Set

Description

A friend of William having difficulty understanding the operations between sets , I went to see to help him solve some exercises for the exam, but as William was lousy in that matter, want you to help develop a program that given two sets of characters (uppercase and lowercase letters and numbers) you should determine union , request intercepts or difference.

Input specification

The entry contains 4 lines , the first and third line contains three space-separated elements , the first element is a string with the word " set " , the second string (containing no more than 10 characters and lowercase letters of the alphabet are English) which is the name of the set, the third element is a number $0 \leq n \leq 50$ represents the number of elements in the set . In the second and third line array elements separated by a space , each element is a character with the characteristics listed above dimensioned.

Output specification

The output contains four lines with the format shown in the example:

The letter ' U ' (is the union between the two sets) , ' I ' (interception between the two sets) , ' / ' (the difference between the two sets) , the array elements must be sorted lexicographically. Note : Please note that if the number of array elements is 0, the line still skips.

Sample input

```
Conjunto uno 4
1 2 3 4
Conjunto dos 8
1 2 3 4 5 6 7 8
```

Sample output

```
uno U dos: {1,2,3,4,5,6,7,8}
uno I dos: {1,2,3,4}
uno D dos: {}
dos D uno: {5,6,7,8}
```

Hint(s)

Source	José Nolberto Isac González
Added by	Igvallejo
Addition date	2013-12-12
Time limit (ms)	10000
Test limit (ms)	1000
Memory limit (kb)	256000
Output limit (mb)	64
Size limit (bytes)	15000
Enabled languages	Bash C C# C++ Java Pascal Perl PHP Python Ruby Text