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Problem Set #7	Date: 09/12/2011

1 Permutations 2

Description

Given an integer n, output all possible strings that consist only of the first n alphabets. The strings must contain all n alphabets and must be of length n.

Note

You should solve the original Permutation problem before you try to solve this problem.

Input Format

An integer n, between 1 and 6.

Output Format

See sample input/output. Output the strings in lexicographical order.

Sample Input

```
3
```

Sample Output

```
abc
acb
bac
bca
cab
cba
```

2 Selection Sort 2

Description

You are given 8 words. Sort them lexicographically.

Note

Use strcmp(,) function (in string or cstring library) to compare two strings. For instance, run the following code to see what happens:

```
char x[12] = "hello";
char y[12] = "abcd";
char z[12] = "xyz";

printf("%d %d\n", strcmp(x, y), strcmp(y, x));
printf("%d %d\n", strcmp(x, z), strcmp(z, x));
printf("%d %d\n", strcmp(z, y), strcmp(y, z));
```

You can think of strcmp(str1, str2) as [str1 - str2]. That is, if strcmp returns zero, that means str1 and str2 are identical. if it returns a negative number, that means str2 is bigger (and thus it comes later in dictionary). if it returns a positive number, that means str2 is smaller (and thus it comes before str1 in dictionary). Hence, you can compare two strings by calling strcmp, and just use the returned numercial value. strcmp returns an integer value.

Input Format

You are given 8 English words. Sort them. The words consist only of lower-case letters.

Output Format

As in sample output.

Sample Input

```
alex
flora
grace
bob
david
emma
chris
helen
```

Sample Output

```
alex
bob
chris
david
emma
flora
grace
helen
```