#include<stdio.h>

#include<conio.h>

#include<string.h>

void permute(char \*str,int l,int pos,int r);

void swap(char &a,char &b);

void print\_string(char \*str,int r);

void print(char \*num, int n);

int main()

{

  char str[10]="";

  int l,r;

  printf("Enter The String : ");

  gets(str);

  l=strlen(str);

  printf("Enter The Number Of Places To permute on : ");

  scanf("%d",&r);

  printf("The Following Permuations are possible : nn");

  permute(str,l,1,r);

int \*ptr;

int temp;

int i, n, j;

printf("\nHow many number you want to enter: ");

scanf("%d", &n);

printf("\nEnter a list of numbers to see all combinations:\n");

for (i = 0 ; i < n; i++)

scanf("%s", &num[i]);

for (j = 1; j <= n; j++) {

for (i = 0; i < n-1; i++) {

temp = num[i];

num[i] = num[i+1];

num[i+1] = temp;

print(num, n);

getch();

  return 0;

}

 void permute(char \*str,int l,int pos,int r)

{

  if(pos==r+1)

  {

      print\_string(str,r);

      printf(" ");

      return;  }

  for(int i=pos-1;i<=l-1;i++)

  {

      str[pos-1]=str[pos-1]+str[i]-(str[i]=str[pos-1]);

      permute(str,l,pos+1,r);

      str[pos-1]=str[pos-1]+str[i]-(str[i]=str[pos-1]);

  }

}

 void print\_string(char \*str,int r)

{

  for(int i=0;i<r;i++)

      printf("%c",str[i]);

}

void print(char \*num, int n)

{

int i;

for ( i = 0 ; i < n ; i++)

printf("%s ", num[i]);

printf("\n");

}