## 1040 As Easy As A+B

### 一、题目

#### 问题描述

These days, I am thinking about a question, how can I get a problem as easy as A+B? It is fairly difficulty to do such a thing. Of course, I got it after many waking nights. Give you some integers, your task is to sort these number ascending (升序). You should know how easy the problem is now! Good luck!

#### 输入数据

Input contains multiple test cases. The first line of the input is a single integer T which is the number of test cases. T test cases follow. Each test case contains an integer N (1<=N<=1000 the number of integers to be sorted) and then N integers follow in the same line. It is guarantied that all integers are in the range of 32-int.

#### 输出数据

For each case, print the sorting result, and one line one case.

#### 输入样例

2  
3 2 1 3  
9 1 4 7 2 5 8 3 6 9

#### 输出样例

1 2 3  
1 2 3 4 5 6 7 8 9

#### 题目来源

HDU 1040 http://acm.hdu.edu.cn/showproblem.php?pid=1040

### 二、题解

#### 解题思路

实际上是将一组输入的数据按从小到大的顺序排序好。

本题我们可以采用打擂法进行排序。

#### 参考程序

#include<stdio.h>  
int main()  
{  
 int t;///表示数据组数   
 scanf("%d",&t);  
   
 while(t--)  
 {  
 int n;  
 scanf("%d",&n);  
   
 int nmr[1000];///表示number   
 for(int i = 0 ; i < n ; i++)  
 scanf("%d",&nmr[i]);  
   
 /////////////////////////////////////////////  
  
 for(int i = 0 ; i < n ; i++)  
 {  
 int min = i;   
   
 for(int j = i ; j < n ; j++)  
 {  
 if(nmr[j] < nmr[min])  
 min=j;  
 }  
   
 /////把从第i位到第n-1位中最小的放到第i位   
 int tmp = nmr[min];///tmp表示临时的  
 nmr[min] = nmr[i];  
 nmr[i] = tmp;   
 }  
   
 ///////////////////////////////////////////////  
   
 for(int i = 0 ; i < n ; i++)  
 {  
 printf("%d",nmr[i]);  
 if(i != n-1)  
 printf(" "); ////每一行末尾不能有多余的空格   
 }  
   
 ////if(t)  
 printf("\n");   
 //////正常情况下最后一行不能回车，但这一题数据有问题，必须有回车  
 }   
   
 return 0;  
}

#### 复杂度分析

相当于冒泡排序，时间复杂度O( n\*n ) ，空间复杂度O( n )

#### 编程技巧

无