SANKARA GOMATHI.R

240701470

Week-08-Sorting Algorithms-Bubble and Selection

Coders here is a simple task for you, you have given an array of size ***N*** and an integer ***M***.

Your task is to calculate the ***difference between maximum sum and minimum sum of N-M*** elements of the given array.

Constraints:

1<=t<=10

1<=n<=1000

1<=a[i]<=1000

Answer: (penalty regime: 0 %)

```c
#include<stdio.h>
int main ()
{
    int n,m,t;
    scanf("%d",&t);
    while(t--)
    {
        scanf("%d %d",&n,&m);
        int a[n];
        for(int i=0;i<n;i++)
        {
            scanf("%d",&a[i]);
        }
        int temp;
        for(int i=0;i<n;i++)
        {
            for(int j=0;j<n-1;j++)
            {
                if(a[j]>a[j+1]){
                    temp=a[j];
                    a[j]=a[j+1];
                    a[j+1]=temp;
                }
            }
        }
        int sum_min=0,sum_max=0,d=n-m;
        for(int i=0;i<d;i++){
            sum_min+=a[i];
            sum_max+=a[n-i-1];

        }
        printf("%d\n",sum_max-sum_min);
    }
    return 0;
}
```

	Input	Expected	Got	
✓	1 5 1 1 2 3 4 5	4	4	✓

Passed all tests! ✓

A new deadly virus has infected large population of a planet. A brilliant scientist has discovered a new strain of virus which can cure this disease. Vaccine produced from this virus has various strength depending on midichlorians count. A person is cured only if midichlorians count in vaccine batch is more than midichlorians count of person. A doctor receives a new set of report which contains midichlorians count of each infected patient, Practo stores all vaccine doctor has and their midichlorians count. You need to determine if doctor can save all patients with the vaccines he has. The number of vaccines and patients are equal.

Answer: (penalty regime: 0 %)

```c
#include<stdio.h>
int main()
{
  int n;
    scanf("%d",&n);
    int vaccine[n],mc[n];
    for(int i=0;i<n;i++){
        scanf("%d",&vaccine[i]);
    }
    for(int i =0;i<n;i++){
        scanf("%d",&mc[i]);
    }
    int count =0;
    for(int i=0;i<n;i++){
        if(vaccine[i]>mc[i]){
            count++;
        }
    }
    if(count==n){
        printf("Yes");
    }
    else{
        printf("No");
    }
    return 0;
}
```

	Input	Expected	Got	
✓	5 123 146 454 542 456 100 328 248 689 200	No	No	✓

Passed all tests! ✓

You are given an array of n integer numbers $a_1, a_2, \ldots, a_n$. Calculate the number of pair of indices (i, j) such that $1 \le i < j \le n$ and a_i xor $a_j = 0$.

```c
#include<stdio.h>
int main()
{
    int n;
    scanf("%d",&n);
    int arr[n];
    for(int i=0;i<n;i++){
        scanf("%d",&arr[i]);
    }
    int c=0;
    for(int i=0;i<n-1;i++){
        for(int j=0;j<n+1;j++){
            if((arr[i]^arr[j])==1){
                c++;

            }
        }
    }
    printf("%d",c);
    return 0;
}
```

	Input	Expected	Got	
✓	5 1 3 1 4 3	2	2	✓