

CS23331-Design and Analysis of Algorithms-2023 Batch-CSE

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Started on	Tuesday, 27 August 2024, 1:47 PM
State	Finished
Completed on	Tuesday, 27 August 2024, 2:00 PM
Time taken	13 mins 47 secs
Marks	1.00/1.00
Grade	10.00 out of 10.00 (100%)

Question 1

Correct

Mark 1.00 out of 1.00

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Assume you are an awesome parent and want to give your children some cookies. But, you should give each child at most one cookie.

Each child i has a greed factor $g[i]$, which is the minimum size of a cookie that the child will be content with; and each cookie j has a size $s[j]$. If $s[j] \geq g[i]$, we can assign the cookie j to the child i , and the child i will be content. Your goal is to maximize the number of your content children and output the maximum number.

Example 1:

Input:

3

1 2 3

2

1 1

Output:

1

Explanation: You have 3 children and 2 cookies. The greed factors of 3 children are 1, 2, 3.

And even though you have 2 cookies, since their size is both 1, you could only make the child whose greed factor is 1 content.

You need to output 1.

Constraints:

$1 \leq g.length \leq 3 \times 10^4$

$0 \leq s.length \leq 3 \times 10^4$

$1 \leq g[i], s[j] \leq 2^{31} - 1$

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main(){
3     int ch,c,count=0,visited=0;
4     scanf("%d",&ch);
5     int g[10];
6     for(int i=0;i<ch;i++){
7         scanf("%d",&g[i]);
8     }
9     scanf("%d",&c);
10    int s[10];
11    for(int i=0;i<c;i++){
12        scanf("%d",&s[i]);
13    }
14
15
16    for(int i=0;i<ch;i++){
17        for(int j=0;j<c;j++){
18            if(s[j]>=g[i] && g[i]!=visited){
19                count++;
20                visited=g[i];
21            }
22        }
23    }
24    printf("%d",count);
25 }
```

	Input	Expected	Got	
✓	2	2	2	✓
	1 2			
	3			
	1 2 3			

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

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