<u>Dashboard</u> / <u>My courses</u> / <u>CS23331-DAA-2023-CSE</u> / <u>Greedy Algorithms</u> / <u>2-G-Cookies Problem</u>

Started on	Friday, 23 August 2024, 1:50 PM
State	Finished
Completed on	Friday, 23 August 2024, 1:57 PM
Time taken	7 mins 7 secs
Marks	1.00/1.00
Grade	10.00 out of 10.00 (100 %)

```
Question 1
Correct
Mark 1.00 out of 1.00
```

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] >= 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:

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 <= g.length <= 3 * 10^4
0 <= s.length <= 3 * 10^4
1 <= g[i], s[j] <= 2^31 - 1
```

Answer: (penalty regime: 0 %)

```
#include <stdio.h>
 2
 3 •
    void sort(int arr[], int n) {
        for (int i = 0; i < n - 1; i++) {
 4
 5 •
             for (int j = i + 1; j < n; j++) {
                 if (arr[i] > arr[j]) {
 6
                     int temp = arr[i];
 7
 8
                     arr[i] = arr[j];
9
                     arr[j] = temp;
10
                 }
11
             }
12
        }
13
14
    int content_children(int g[], int s[], int g_length, int s_length) {
15
16
        sort(g, g_length);
17
        sort(s, s_length);
        int i, j;
for (i = j = 0; i < g_length && j < s_length; j++) {</pre>
18
19
20
             if (s[j] >= g[i]) i++;
21
22
        return i;
23
24
25 •
    int main() {
26
        int g_length, s_length;
        scanf("%d", &g_length);
27
28
        int g[g_length];
        for (int i = 0; i < g_length; i++) scanf("%d", &g[i]);
29
30
        scanf("%d", &s_length);
31
        int s[s_length];
32
        for (int i = 0; i < s_length; i++) scanf("%d", &s[i]);</pre>
        printf("%d\n", content_children(g, s, g_length, s_length));
33
34
35
   }
```

	Input	Expected	Got	
~	2	2	2	~
	1 2			
	3			
	1 2 3			

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

■ 1-G-Coin Problem

Jump to...

3-G-Burger Problem ►