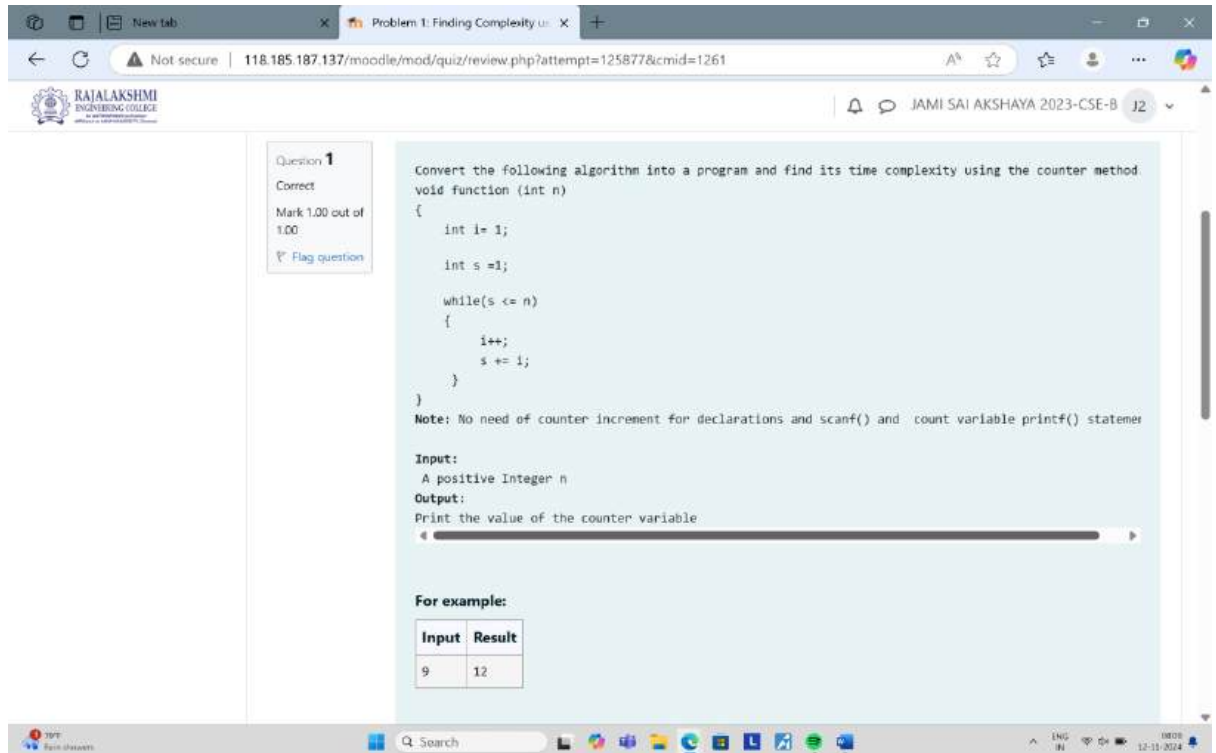


MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "

1.



The screenshot shows a web browser window displaying a Moodle quiz question. The browser's address bar shows the URL: `118.185.187.137/moodle/mod/quiz/review.php?attempt=125877&cmid=1261`. The page header includes the logo of RAJALAKSHMI ENGINEERING COLLEGE and the user's name, JAMI SAI AKSHAYA, with the course identifier 2023-CSE-B.

Question 1
Correct
Mark 1.00 out of 1.00
[Flag question](#)

Convert the following algorithm into a program and find its time complexity using the counter method.

```
void function (int n)
{
    int i= 1;

    int s =1;

    while(s <= n)
    {
        i++;
        s += i;
    }
}
```

Note: No need of counter increment for declarations and scanf() and count variable printf() statements

Input:
A positive Integer n

Output:
Print the value of the counter variable.

For example:

Input	Result
9	12

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "

Problem 1: Finding Complexity of

Not secure | 118.185.187.137/moodle/mod/quiz/review.php?attempt=125877&cmid=1261

RAJALAKSHMI
ENGINEERING COLLEGE
An ISO 9001:2015 Certified Organization

JAMI SAI AKSHAYA 2023-CSE-B J2

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main(){
3     int n;
4     scanf("%d", &n);
5     int counter=0;
6     int i=1; counter++;
7     int s=1; counter++;
8     while(s <= n){
9         counter++;
10        i++; counter++;
11        s+=i; counter++;
12    }
13    counter++;
14    printf("%d", counter);
15 }
```

	Input	Expected	Got	
✓	9	12	12	✓

Breaking news
Young selects M...

Search

ENG IN 12-11-2024

MOODLE PROGRAMS (DAA)

-BY “ NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B ”

The screenshot shows a web browser window displaying a Moodle quiz review page. The browser's address bar shows the URL: `118.185.187.137/moodle/mod/quiz/review.php?attempt=125877&cmid=1261`. The page header includes the Rata Lakshmi Engineering College logo and the user's name, JAMI SAI AKSHAYA 2023-CSE-B, with a dropdown menu showing 'J2'. The main content area features a large empty text box at the top. Below it, a table displays the quiz results for 'Problem 1: Finding Complexity'. The table has four columns: 'Input', 'Expected', 'Got', and a status column. Two rows of test cases are shown, both of which passed. Below the table, a green box states 'Passed all tests!' with a checkmark. A 'Correct' label and the marks '1.00/1.00' are also visible. At the bottom right of the main content area, there is a 'Finish review' link. The footer of the page includes a navigation link 'Model Exam DAA(A,C,F)', a 'Jump to...' dropdown menu, and a link to 'Problem 2: Finding Complexity using Counter method'. The Windows taskbar at the bottom shows the system clock as 12:11 on 12-11-2024.

	Input	Expected	Got	
✓	9	12	12	✓
✓	4	9	9	✓

Passed all tests! ✓

Correct
Marks for this submission: 1.00/1.00.

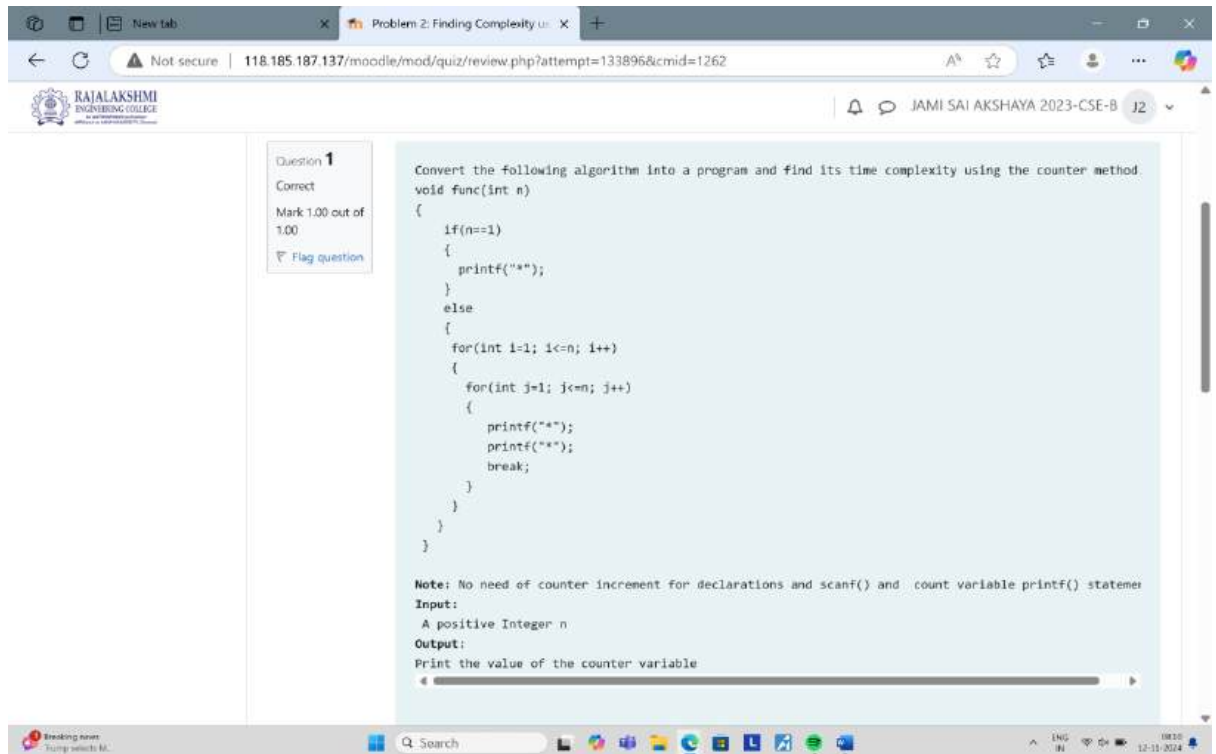
Finish review

← Model Exam DAA(A,C,F) Jump to... Problem 2: Finding Complexity using Counter method →

2.

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "



The screenshot shows a web browser window displaying a Moodle quiz review page. The browser's address bar shows the URL: `118.185.187.137/moodle/mod/quiz/review.php?attempt=133896&cmid=1262`. The page header includes the logo of RAJALAKSHMI ENGINEERING COLLEGE and the user's name, JAMI SAI AKSHAYA 2023-CSE-B, with a user ID of J2.

The main content area displays the following information:

- Question 1**
- Correct**
- Mark 1.00 out of 1.00**
- [Flag question](#)

The question text is: "Convert the following algorithm into a program and find its time complexity using the counter method."

```
void func(int n)
{
    if(n==1)
    {
        printf("**");
    }
    else
    {
        for(int i=1; i<=n; i++)
        {
            for(int j=1; j<=n; j++)
            {
                printf("**");
                printf("**");
                break;
            }
        }
    }
}
```

Note: No need of counter increment for declarations and scanf() and count variable printf() statements

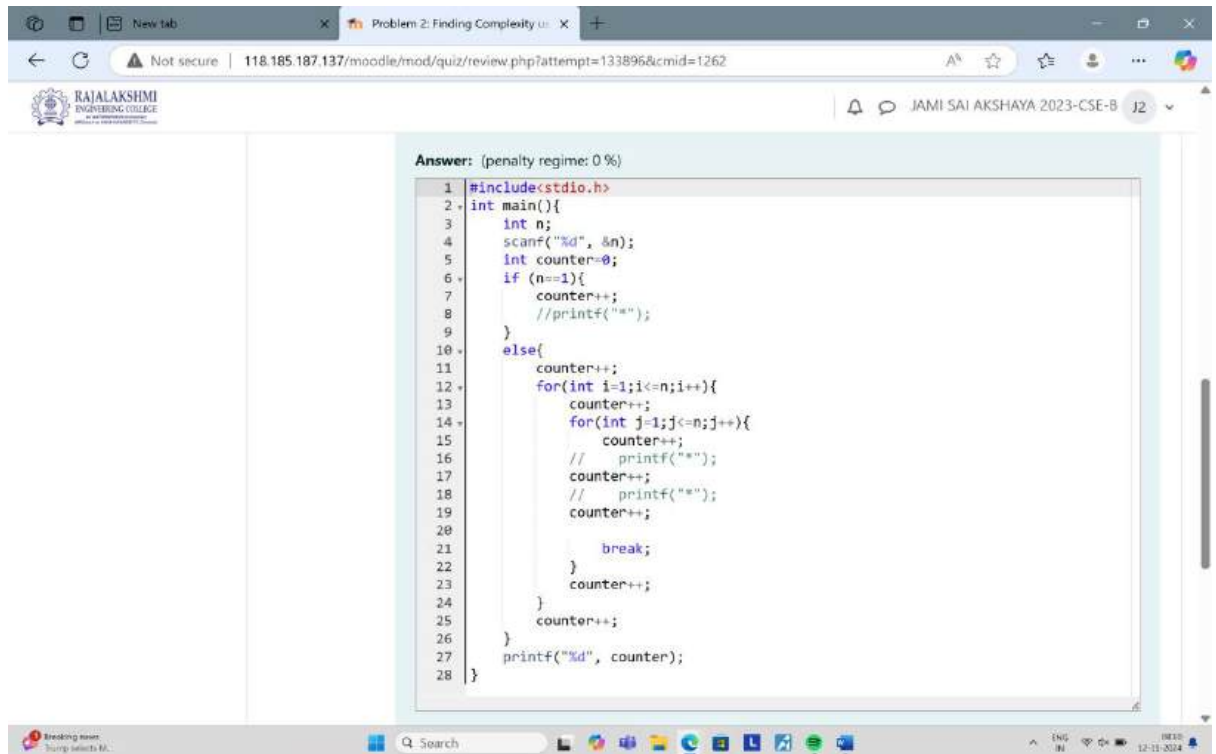
Input:
A positive Integer n

Output:
Print the value of the counter variable

The bottom of the screenshot shows a Windows taskbar with various application icons and a system clock indicating the date 12-11-2024.

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "



The screenshot shows a web browser window with a Moodle quiz review page. The browser's address bar displays the URL: 118.185.187.137/moodle/mod/quiz/review.php?attempt=133896&cmid=1262. The page header includes the logo of RAJALAKSHMI ENGINEERING COLLEGE and the user's name, JAMI SAI AKSHAYA 2023-CSE-B. The main content area shows the answer to a problem, with a penalty regime of 0%. The code is a C program that calculates the complexity of a nested loop structure. The code is as follows:

```
1 #include<stdio.h>
2 int main(){
3     int n;
4     scanf("%d", &n);
5     int counter=0;
6     if (n==1){
7         counter++;
8         //printf("%d", counter);
9     }
10    else{
11        counter++;
12        for(int i=1;i<=n;i++){
13            counter++;
14            for(int j=1;j<=n;j++){
15                counter++;
16                // printf("%d", counter);
17            }
18            counter++;
19            counter++;
20        }
21        break;
22    }
23    counter++;
24 }
25 printf("%d", counter);
26 }
```

MOODLE PROGRAMS (DAA)

-BY “ NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B ”

The screenshot shows a web browser window displaying a Moodle quiz review page. The browser's address bar shows the URL: `118.185.187.137/moodle/mod/quiz/review.php?attempt=133896&cmid=1262`. The page header includes the logo of RAJALAKSHMI ENGINEERING COLLEGE and the user's name, JAMI SAI AKSHAYA 2023-CSE-B, with a user ID of J2.

The main content area displays the code for 'Problem 2: Finding Complexity using Counter Method':`25 counter++;
26 }
27 printf("%d", counter);
28 }`

```


Below the code, a table shows the test results:



|   | Input | Expected | Got  |   |
|---|-------|----------|------|---|
| ✓ | 2     | 12       | 12   | ✓ |
| ✓ | 1000  | 5002     | 5002 | ✓ |
| ✓ | 143   | 717      | 717  | ✓ |



Passed all tests! ✓



Correct  
Marks for this submission: 1.00/1.00.



At the bottom, there are navigation links for 'Problem 1: Finding Complexity using Counter Method' and 'Problem 3: Finding Complexity using Counter Method', along with a 'Jump to...' dropdown menu. A 'Finish review' link is also present.


```

3.

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "

Question 1
Correct
Mark 1.00 out of 1.00
Flag question

Convert the following algorithm into a program and find its time complexity using counter method.

```
Factor(num) {  
    for (i = 1; i <= num; ++i)  
    {  
        if (num % i == 0)  
        {  
            printf("%d ", i);  
        }  
    }  
}
```

Note: No need of counter increment for declarations and scanf() and counter variable printf() statement

Input:
A positive Integer n

Output:
Print the value of the counter variable

Answer:

```
1 #include<stdio.h>  
2  
3 void Factor(int num){  
4     int counter=0;  
5     for(int i=1; i<=num; ++i){  
6         counter++;  
7         if(num%i==0){  
8             counter++;  
9         }  
10        counter++;  
11    }  
12    counter++;  
13    printf("%d", counter);  
14 }  
15  
16 int main(){  
17     int n;  
18     scanf("%d", &n);  
19     Factor(n);  
20 }  
21  
22  
23
```

PRINT THE VALUE OF THE COUNTER VARIABLE

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "

The screenshot shows a web browser window displaying a Moodle quiz review page. The browser's address bar shows the URL: `118.185.187.137/moodle/mod/quiz/review.php?attempt=133985&cmid=1263`. The page header includes the RAI LAKSHMI ENGINEERING COLLEGE logo and the user's name, JAMI SAI AKSHAYA 2023-CSE-B, with a dropdown menu showing 'J2'.

The main content area displays the code for 'Problem 3: Finding Complexity' in a text editor:

```
19 scanf("%d", &n);
20 Factor(n);
21
22 }
23
```

Below the code editor is a table showing test results:

	Input	Expected	Got	
✓	12	31	31	✓
✓	25	54	54	✓
✓	4	12	12	✓

Below the table, it says "Passed all tests! ✓". A green box contains the text "Correct" and "Marks for this submission: 1.00/1.00".

At the bottom right, there is a "Finish review" link. Below the main content area, there are navigation links: "← Problem 2: Finding Complexity using Counter method" and "Problem 4: Finding Complexity using Counter Method →". A "Jump to..." dropdown menu is also present.

The Windows taskbar at the bottom shows the date and time as 12-11-2024.

4.

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "

The screenshot shows a Moodle quiz review page for 'Problem 4: Finding Complexity'. The page is titled 'Question 1' and is marked 'Correct' with a score of 'Mark 1.00 out of 1.00'. The question asks to convert an algorithm into a program and find its time complexity using the counter method. The algorithm is as follows:

```
void function(int n)
{
    int c = 0;
    for(int i=n/2; i<n; i++)
        for(int j=1; j<n; j = 2 * j)
            for(int k=1; k<n; k = k * 2)
                c++;
}
```

Note: No need of counter increment for declarations and scanf() and count variable printf() statements

Input:
A positive Integer n

Output:
Print the value of the counter variable

The answer provided is a C program that implements the algorithm and counts the number of iterations:

```
1 #include<stdio.h>
2 void function(int n){
3     int counter=0;
4     int c=0;
5     counter++;
6     for(int i=n/2;i<n;i++){
7         counter++;
8         for(int j=1;j<n;j=2*j){
9             counter++;
10            for (int k=1;k<n;k=k*2){
11                counter++;
12                c++;
13                counter++;
14            }
15            counter++;
16        }
17        counter++;
18    }
19    counter++;
20    printf("%d", counter);
21 }
22
23 int main(){
24     int n;
25     scanf("%d", &n);
26     function(n);
27 }
```

MOODLE PROGRAMS (DAA)

-BY “ NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B ”

The screenshot shows a web browser window displaying a Moodle quiz review page. The browser's address bar shows the URL: `118.185.187.137/moodle/mod/quiz/review.php?attempt=134182&cmid=1264`. The page header includes the logo of RAJALAKSHMI ENGINEERING COLLEGE and the user's name, JAMI SAI AKSHAYA 2023-CSE-B. The main content area displays the code for 'Problem 4: Finding Complexity' and a table of test results.

```
21 }  
22  
23 int main(){  
24     int n;  
25     scanf("%d", &n);  
26     function(n);  
27 }
```

	Input	Expected	Got	
✓	4	30	30	✓
✓	10	212	212	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00

Finish review

◀ Problem 3: Finding Complexity using Counter Method Jump to... Problem 5: Finding Complexity using counter method ▶

5.

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "

The screenshot displays a Moodle quiz review interface. The browser address bar shows the URL: `118.185.187.137/moodle/mod/quiz/review.php?attempt=134217&cmid=1265`. The user is identified as JAMI SAI AKSHAYA 2023-CSE-B.

Question 1
Correct
Mark 1.00 out of 1.00
Flag question

Convert the following algorithm into a program and find its time complexity using counter method.

```
void reverse(int n)
{
    int rev = 0, remainder;
    while (n != 0)
    {
        remainder = n % 10;
        rev = rev * 10 + remainder;
        n /= 10;
    }
    print(rev);
}
```

Note: No need of counter increment for declarations and scanf() and count variable printf() statement

Input:
A positive Integer n

Output:
Print the value of the counter variable

Answer:

```
1 #include<stdio.h>
2 void reverse(int n)
3 {
4     int counter=0;
5     int rev = 0, remainder;
6     counter++;
7     while (n != 0)
8     {
9         counter++;
10        remainder = n % 10;
11        counter++;
12        rev = rev * 10 + remainder;
13        counter++;
14        n /= 10;
15        counter++;
16    }
17    counter++;
18    counter++;
19    printf("%d", counter);
20    //print(rev);
21 }
22
23
24 int main(){
25     int n;
26     scanf("%d", &n);
27     reverse(n);
28 }
```

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "

The screenshot shows a web browser window displaying a Moodle quiz review page. The browser's address bar shows the URL: `118.185.187.137/moodle/mod/quiz/review.php?attempt=134217&cmid=1265`. The page header includes the logo of RAJALAKSHMI ENGINEERING COLLEGE and the user's name, JAMI SAI AKSHAYA 2023-CSE-B, with a profile icon.

The main content area displays the code for 'Problem 5: Finding Complexity' in a light blue box:

```
23
24 int main(){
25     int n;
26     scanf("%d", &n);
27     reverse(n);
28 }
```

Below the code, a table shows the test results:

	Input	Expected	Got	
✓	12	11	11	✓
✓	1234	19	19	✓

Below the table, a green box states: "Passed all tests! ✓". Below that, a green box states: "Correct". At the bottom of this section, it says: "Marks for this submission: 1.00/1.00".

At the bottom of the page, there are navigation links: "Problem 4: Finding Complexity using Counter Method", a "Jump to..." dropdown menu, and "1-G-Coin Problem". A "Finish review" link is also present.

The Windows taskbar at the bottom shows the system clock as 12:11 on 12-11-2024.

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "

1.

Question 1
Correct
Mark 1.00 out of 1.00
Flag question

Write a program to take value V and we want to make change for V Rs, and we have infinite supply of each of the denominations in Indian currency, i.e., we have infinite supply of { 1, 2, 5, 10, 20, 50, 100, 500, 1000} valued coins/notes, what is the minimum number of coins and/or notes needed to make the change.

Input Format:
Take an integer from stdin.

Output Format:
print the integer which is change of the number.

Example Input :
64

Output:
4

Explanaton:
We need a 50 Rs note and a 10 Rs note and two 2 rupee coins.

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main(){
3     int coins[]={1,2,5,10,20,50,100,500,1000};
4     int value;
5     scanf("%d", &value);
```

```
1 #include<stdio.h>
2 int main(){
3     int coins[]={1,2,5,10,20,50,100,500,1000};
4     int value;
5     scanf("%d", &value);
6     int count=0, n=8;
7     while(value){
8
9         count+=(value/coins[n]);
10        value=value%coins[n];
11        n=n-1;
12    }
13    printf("%d", count);
14 }
```

Input	Expected	Got	
✓ 49	5	5	✓

Passed all tests! ✓

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "

Question 1
Correct
Mark 1.00 out of 1.00
Flag question

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 <= g.length <= 3 * 10^4
0 <= s.length <= 3 * 10^4
```

2.

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
```

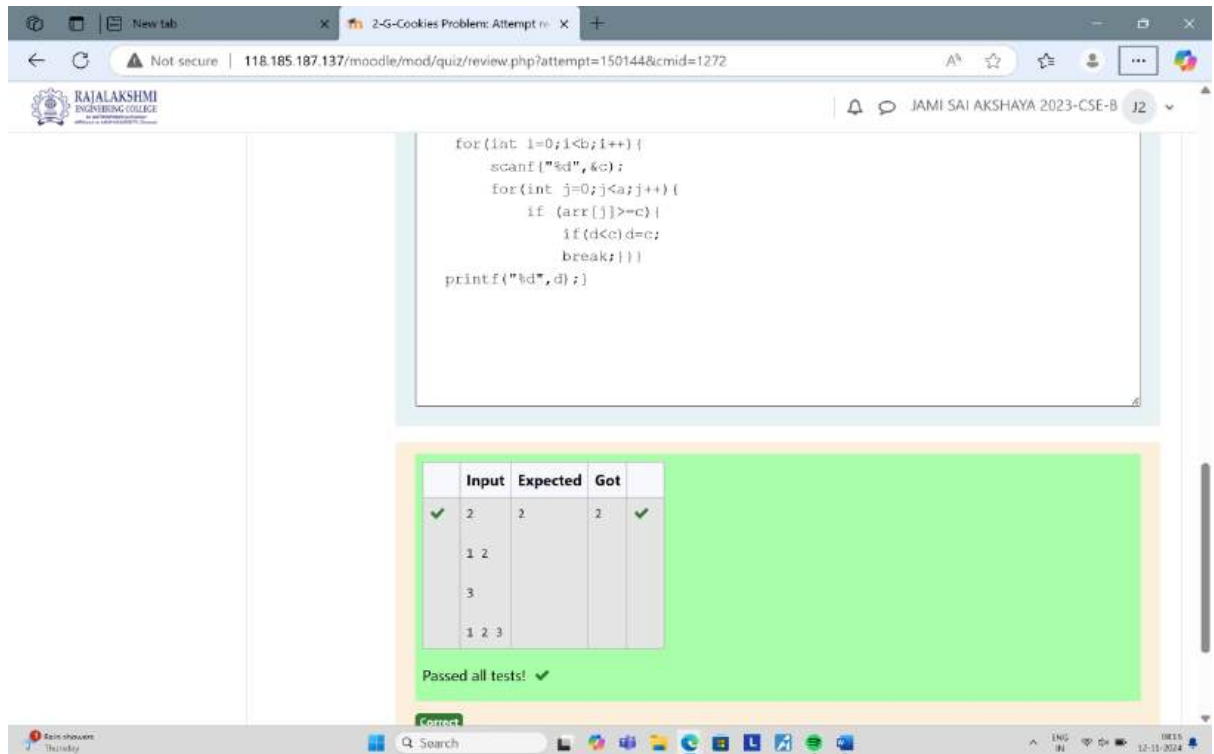
Answer: (penalty regime: 0 %)

Ace editor not ready. Perhaps reload page?
Falling back to raw text area.

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

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "



The screenshot shows a web browser window displaying a Moodle quiz review page. The browser's address bar shows the URL: `118.185.187.137/moodle/mod/quiz/review.php?attempt=150144&cmid=1272`. The page header includes the Ratalakshmi Engineering College logo and the user's name: JAMI SAI AKSHAYA 2023-CSE-B. The main content area displays a C++ code snippet for finding the maximum element in an array. Below the code, there is a table showing the results of several test cases. The table has four columns: Input, Expected, Got, and a status column. The first row shows a successful test case with input '2', expected '2', and got '2'. The second row shows a failed test case with input '1 2', expected '2', and got '1'. The third row shows a failed test case with input '3', expected '3', and got '1'. The fourth row shows a failed test case with input '1 2 3', expected '3', and got '1'. Below the table, a green message box states 'Passed all tests!'. The browser's taskbar at the bottom shows the date and time as 12-11-2024.

```
for(int i=0;i<b;i++){
    scanf("%d",&c);
    for(int j=0;j<a;j++){
        if (arr[j]>=c){
            if (d<c)d=c;
            break;}}
    printf("%d",d);}
```

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

Passed all tests! ✓

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "

3.

Question 1
Correct
Mark 1.00 out of 1.00
Flag question

A person needs to eat burgers. Each burger contains a count of calorie. After eating the burger, the If he has eaten i burgers with c calories each, then he has to run at least $3^i * c$ kilometers to burn out the calories. But this is not the minimum, so need to try out other orders of consumption and choose the minimum he needs to run. Note: He can eat burger in any order and use an efficient sorting algorithm. Apply it

Input Format
First line contains the number of burgers.
Second line contains calories of each burger which is n space-separate integers

Output Format
Print: Minimum number of kilometers needed to run to burn out the calories

Sample Input
3
5 10 7

Sample Output
76

For example:

Test	Input	Result
Test Case 1	3 1 3 2	18

Answer: (penalty regime: 0 %)

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

Test	Input	Expected	Got
✓ Test Case 1	3 1 3 2	18	18 ✓

MOODLE PROGRAMS (DAA)

-BY “ NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B ”

The screenshot shows a web browser window displaying a Moodle quiz review page. The browser's address bar shows the URL: `118.185.187.137/moodle/mod/quiz/review.php?attempt=138809&cmid=1273`. The page header includes the RATA LAKSHMI ENGINEERING COLLEGE logo and the user's name, JAMI SAI AKSHAYA 2023-CSE-B.

The main content area displays the submitted code for the 3-G-Burger Problem:

```
temp=arr[i];
arr[i]=arr[j];
arr[j]=temp;
```

Below the code, a table shows the results of three test cases:

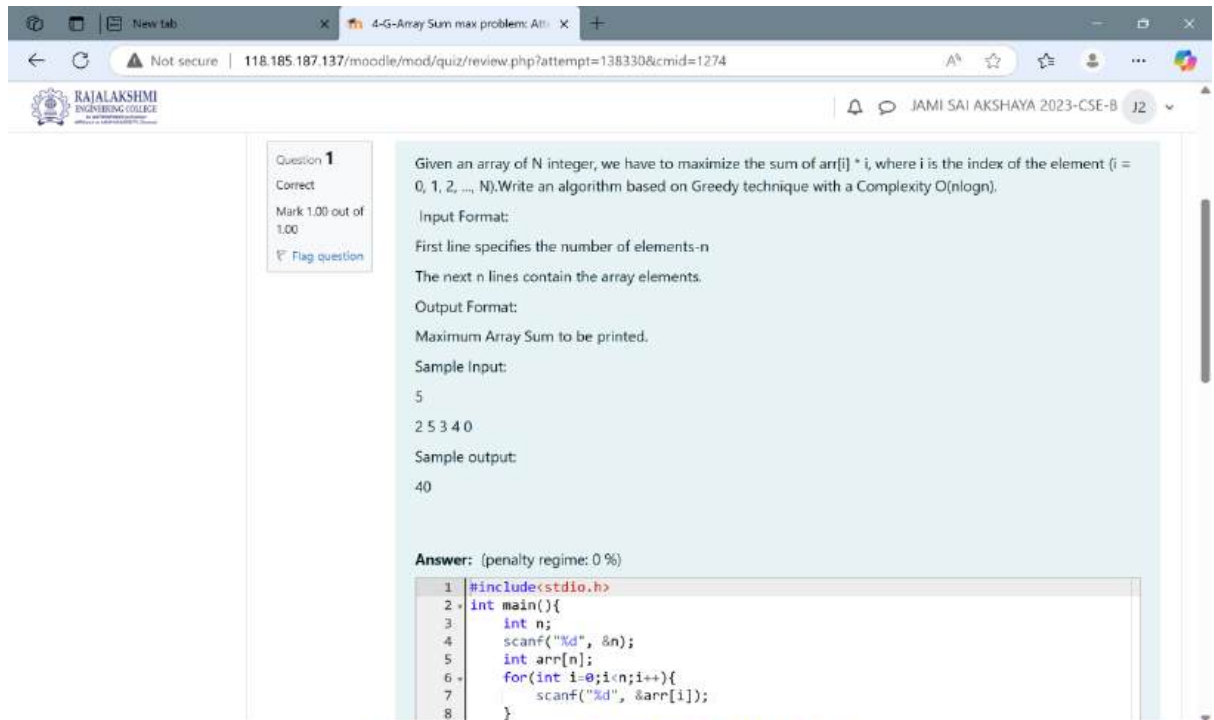
	Test	Input	Expected	Got	
✓	Test Case 1	3 1 3 2	18	18	✓
✓	Test Case 2	4 7 4 9 6	389	389	✓
✓	Test Case 3	3 5 10 7	76	76	✓

Below the table, it states "Passed all tests! ✓". A green box highlights the "Correct" status and the marks for this submission: 1.00/1.00.

At the bottom of the page, there is a button labeled "Save the state of the flags" and a link labeled "Finish review".

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "



The screenshot shows a Moodle quiz review page for a problem titled "4-G-Array Sum max problem". The page is from Rajalakshmi Engineering College. The question is marked as "Correct" with a score of "1.00 out of 1.00". The problem description asks for an algorithm to maximize the sum of $arr[i] * i$ for $i = 0, 1, 2, \dots, N$ using a Greedy technique with a complexity of $O(n \log n)$. The input format specifies that the first line is the number of elements n , and the next n lines contain the array elements. The output format is the maximum array sum. A sample input shows $n=5$ and the array $[2, 5, 3, 4, 0]$, with a sample output of 40 . The user's answer is shown in a code editor, which is a C++ program that reads the input and calculates the sum of $arr[i] * i$ for each i .

Question 1
Correct
Mark 1.00 out of 1.00
Flag question

Given an array of N integer, we have to maximize the sum of $arr[i] * i$, where i is the index of the element ($i = 0, 1, 2, \dots, N$). Write an algorithm based on Greedy technique with a Complexity $O(n \log n)$.

Input Format:
First line specifies the number of elements- n
The next n lines contain the array elements.

Output Format:
Maximum Array Sum to be printed.

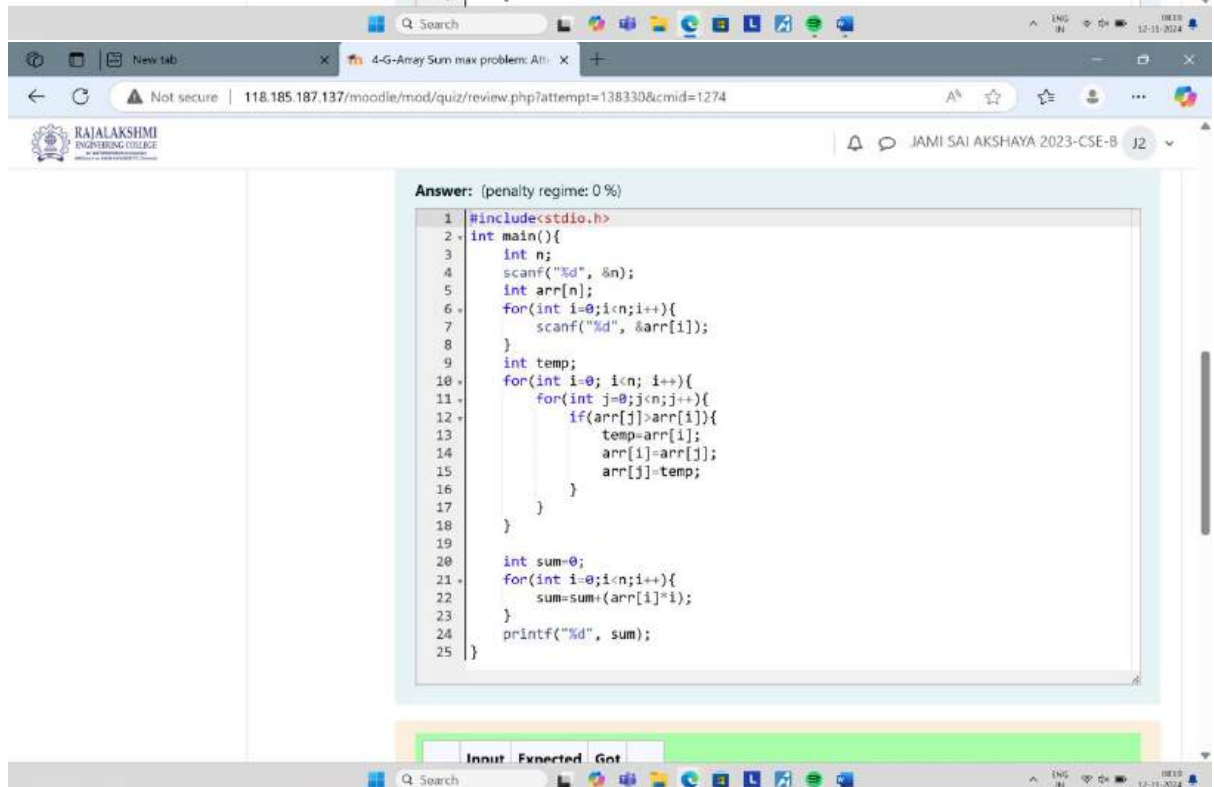
Sample Input:
5
2 5 3 4 0

Sample output:
40

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main(){
3     int n;
4     scanf("%d", &n);
5     int arr[n];
6     for(int i=0;i<n;i++){
7         scanf("%d", &arr[i]);
8     }
```

4.



This screenshot shows the same Moodle quiz review page, but with the user's complete C++ solution pasted into the answer field. The code implements a greedy algorithm that sorts the array in descending order and then calculates the sum of $arr[i] * i$ for each i . The code is as follows:

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

Input Expected Got

MOODLE PROGRAMS (DAA)

-BY “ NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B ”

Not secure | 118.185.187.137/moodle/mod/quiz/review.php?attempt=138330&cmid=1274

RATA LAKSHMI ENGINEERING COLLEGE

JAMI SAI AKSHAYA 2023-CSE-B J2

	Input	Expected	Got	
✓	5 2 5 3 4 0	40	40	✓
✓	10 2 2 2 2 4 4 3 3 5 5	191	191	✓
✓	2 45 3	45	45	✓

Passed all tests! ✓

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "

5.

The screenshot displays a Moodle quiz review interface. The browser address bar shows the URL: `118.185.187.137/moodle/mod/quiz/review.php?attempt=138474&cmid=1275`. The page header includes the Rajalakshmi Engineering College logo and the user's name, JAMI SAI AKSHAYA, with the course identifier 2023-CSE-B.

Question 1
Correct
Mark 1.00 out of 1.00
Flag question

Given two arrays `array_One[]` and `array_Two[]` of same size `N`. We need to first rearrange the arrays such that the sum of the product of pairs (1 element from each) is minimum. That is $SUM (A[i] * B[i])$ for all `i` is minimum.

For example:

Input	Result
3	28
1	
2	
3	
4	
5	
6	

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main(){
3     int n;
4     scanf("%d", &n);
5     int a[n], b[n];
6     for(int i=0;i<(n);i++){
7         scanf("%d", &a[i]);
8     }
9     for(int i=0;i<(n);i++){
10        scanf("%d", &b[i]);
11    }
12    int temp1;
```

The user's submitted code is as follows:

```
1 #include<stdio.h>
2 int main(){
3     int n;
4     scanf("%d", &n);
5     int a[n], b[n];
6     for(int i=0;i<(n);i++){
7         scanf("%d", &a[i]);
8     }
9     for(int i=0;i<(n);i++){
10        scanf("%d", &b[i]);
11    }
12    int temp1;
13    for(int i=0;i<(n);i++){
14        for (int j=0;j<(n);j++){
15            if(a[j]>a[i]){
16                temp1=a[i];
17                a[i]=a[j];
18                a[j]=temp1;
19            }
20        }
21    }
22    int temp;
23    for(int i=0;i<(n);i++){
24        for (int j=0;j<(n);j++){
25            if(b[j]<b[i]){
26                temp=b[i];
27                b[i]=b[j];
28                b[j]=temp;
29            }
30        }
31    }
32    int sum=0;
33    for(int i=0;i<(n);i++){
```

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "

The screenshot displays a Moodle quiz review page for a program titled "5-G-Product of Array elements". The page shows the C++ code used for the quiz, which calculates the product of elements in an array. Below the code, a table lists the test cases, their expected results, and the actual results. The table indicates that all tests were passed successfully.

```
20     }  
21     }  
22     int temp;  
23     for(int i=0;i<n;i++){  
24         for (int j=0;j<n;j++){  
25             if(b[j]<b[i]){  
26                 temp=b[i];  
27                 b[i]=b[j];  
28                 b[j]=temp;  
29             }  
30         }  
31     }  
32     int sum=0;  
33     for(int i=0;i<n;i++){  
34         sum=sum+(a[i]*b[i]);  
35     }  
36     printf("%d", sum);  
37 }  
38 }
```

	Input	Expected	Got	
✓	3	28	28	✓
	1			
	2			
	3			
	4			
	5			
	6			
✓	4	22	22	✓
	7			
	5			
	1			
	2			
	1			
	3			
	4			
	1			
✓	5	590	590	✓
	20			
	10			
	30			
	10			
	40			
	8			
	9			
	4			
	3			
	10			

Passed all tests! ✓

Correct

MOODLE PROGRAMS (DAA)

**-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "**

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "

1-Number of Zeros in a Given Array

Not secure | 118.185.187.137/moodle/mod/quiz/review.php?attempt=146176&cmid=1266

RAJALAKSHMI ENGINEERING COLLEGE

JAMI SAI AKSHAYA 2023-CSE-B

Question 1
Correct
Mark 1.00 out of 1.00
Flag question

Problem Statement
Given an array of 1s and 0s this has all 1s first followed by all 0s. Aim is to find the number of 0s. Write a program using Divide and Conquer to Count the number of zeroes in the given array.
Input Format
First Line Contains Integer m – Size of array
Next m lines Contains m numbers – Elements of an array
Output Format
First Line Contains Integer – Number of zeroes present in the given array.

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main(){
3     int m;
4     scanf("%d", &m);
5     int arr[m];
6     for(int i=0;i<m;i++){
7         scanf("%d", &arr[i]);
8     }
9     int count=0;
10    for(int i=0;i<m;i++){
11        if(arr[i]==0){
12            count++;
13        }
14    }
15    printf("%d", count);
```

1.

1-Number of Zeros in a Given Array

Not secure | 118.185.187.137/moodle/mod/quiz/review.php?attempt=146176&cmid=1266

RAJALAKSHMI ENGINEERING COLLEGE

JAMI SAI AKSHAYA 2023-CSE-B

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main(){
3     int m;
4     scanf("%d", &m);
5     int arr[m];
6     for(int i=0;i<m;i++){
7         scanf("%d", &arr[i]);
8     }
9     int count=0;
10    for(int i=0;i<m;i++){
11        if(arr[i]==0){
12            count++;
13        }
14    }
15    printf("%d", count);
16 }
```

	Input	Expected	Got	
✓	5	2	2	✓
	1			

MOODLE PROGRAMS (DAA)

-BY “ NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B ”

The screenshot shows a web browser window displaying a Moodle quiz review page. The browser's address bar shows the URL: `118.185.187.137/moodle/mod/quiz/review.php?attempt=146176&cmid=1266`. The page header includes the Ratalakshmi Engineering College logo and the user's name, JAMI SAI AKSHAYA, along with the course identifier 2023-CSE-B and the user ID J2.

The main content area displays a table with quiz results. The table has four columns: a status column (green checkmark), a question number column, an answer column, and a correct answer column. The first three rows of the table are visible, each showing a correct answer (green checkmark) for a question about the number of zeros in a given array. The first row shows 10 zeros, the second row shows 8 zeros, and the third row shows 17 zeros. The correct answers are also 10, 8, and 17 respectively. The rest of the table is obscured by a large green rectangular area.

Status	Question Number	Answer	Correct Answer
✓	10	8	8
✓	8	8	8
✓	17	2	2

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "

2-Majority Element: Attempt review

Not secure | 118.185.187.137/moodle/mod/quiz/review.php?attempt=146205&cmid=1267

RAJALAKSHMI ENGINEERING COLLEGE

JAMI SAI AKSHAYA 2023-CSE-B J2

Question 1
Correct
Mark 1.00 out of 1.00
Flag question

Given an array *nums* of size *n*, return the majority element.
The majority element is the element that appears more than $\lfloor n / 2 \rfloor$ times. You may assume that the majority element always exists in the array.

Example 1:
Input: *nums* = [3,2,3]
Output: 3

Example 2:
Input: *nums* = [2,2,1,1,1,2,2]
Output: 2

Constraints:

- $n == \text{nums.length}$
- $1 \leq n \leq 5 \cdot 10^4$
- $-2^{31} \leq \text{nums}[i] \leq 2^{31} - 1$

For example:

Input	Result
3	3
3 2 3	3

2.

2-Majority Element: Attempt review

Not secure | 118.185.187.137/moodle/mod/quiz/review.php?attempt=146205&cmid=1267

RAJALAKSHMI ENGINEERING COLLEGE

JAMI SAI AKSHAYA 2023-CSE-B J2

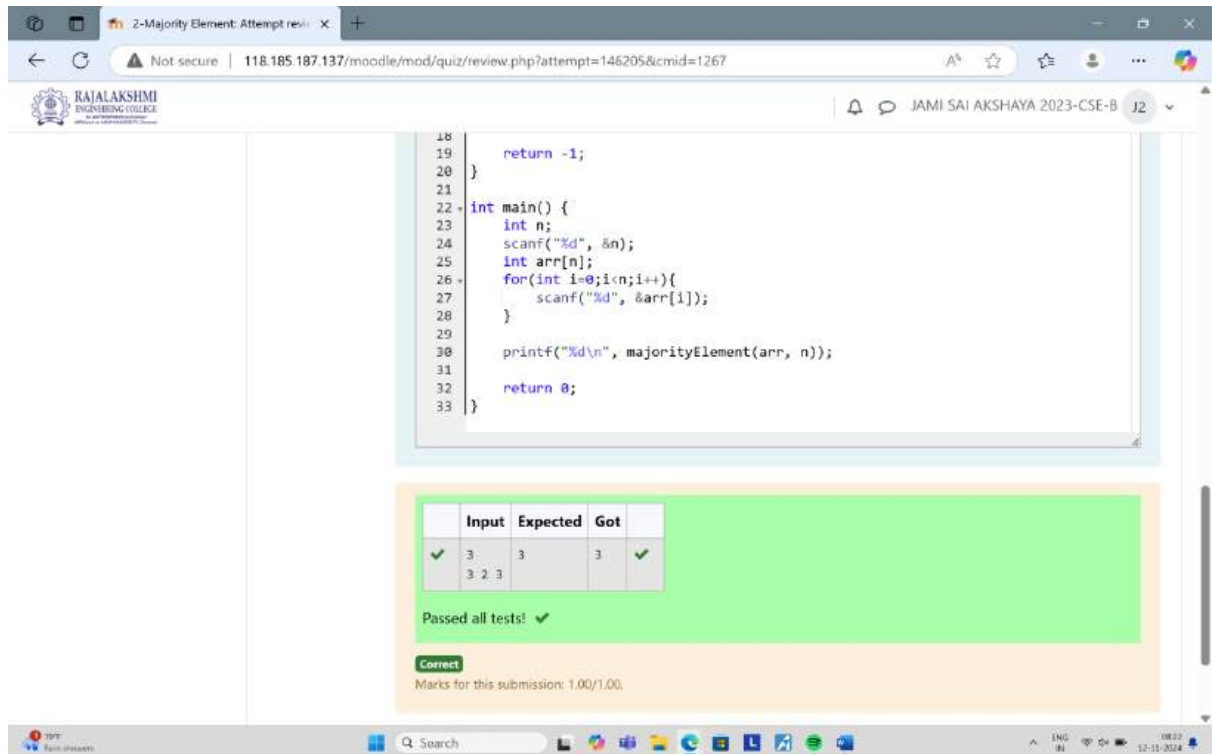
Input	Result
3	3
3 2 3	3
7	2
2 2 1 1 1 2 2	2

Answer: (penalty regime: 0 %)

```
1 #include <stdio.h>
2
3 int majorityElement(int arr[], int n) {
4
5     for (int i = 0; i < n; i++) {
6         int count = 0;
7
8         for (int j = 0; j < n; j++) {
9             if (arr[i] == arr[j]) {
10                 count++;
11             }
12         }
13
14         if (count > n / 2) {
15             return arr[i];
16         }
17     }
18
19     return -1;
20 }
21
```

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "



The screenshot displays a Moodle quiz review interface. The browser address bar shows the URL: `118.185.187.137/moodle/mod/quiz/review.php?attempt=146205&cmid=1267`. The page header includes the Ratalakshmi Engineering College logo and the user name 'JAMI SAI AKSHAYA 2023-CSE-B'. The main content area shows a C program for finding the majority element. The code is as follows:

```
18     return -1;
19 }
20
21
22 int main() {
23     int n;
24     scanf("%d", &n);
25     int arr[n];
26     for(int i=0; i<n; i++){
27         scanf("%d", &arr[i]);
28     }
29
30     printf("%d\n", majorityElement(arr, n));
31
32     return 0;
33 }
```

Below the code, there is a table with the following data:

	Input	Expected	Got	
✓	3	3	3	✓
	3 2 3			

Below the table, it says "Passed all tests! ✓". At the bottom, it says "Correct" and "Marks for this submission: 1.00/1.00".

MOODLE PROGRAMS (DAA)

-BY “ NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B ”

Question 1
Correct
Mark 1.00 out of 1.00
Flag question

Problem Statement:
Given a sorted array and a value x, the floor of x is the largest element in array smaller than or equal to x. Write divide and conquer algorithm to find floor of x.

Input Format
First Line Contains Integer n – Size of array
Next n lines Contains n numbers – Elements of an array
Last Line Contains Integer x – Value for x

Output Format
First Line Contains Integer – Floor value for x

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2
3 int divide(int arr[],int i,int j,int x){
4     if(i>j) return -1;
5
6     int mid=(i+j)/2;
7     if(x>=arr[mid]&&(mid==j||x<arr[mid+1]))return mid+1;
8     else if(x<arr[mid])return divide(arr,i,mid-1,x);
9     else return divide(arr,mid+1,j,x);
10 }
11
12 int main(){
13
14     int a;
```

3.

```
20     printf("%d\n",arr[d-1]);
21 }
22
23
24
25
26
```

	Input	Expected	Got	
✓	6	2	2	✓
	1			
	2			
	8			
	10			
	12			
	19			
	5			
✓	5	85	85	✓
	10			
	22			
	85			
	108			
	129			
	100			
✓	7	9	9	✓

MOODLE PROGRAMS (DAA)

-BY “ NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B ”

The screenshot shows a Moodle quiz review interface. The browser address bar indicates the URL: `118.185.187.137/moodle/mod/quiz/review.php?attempt=146293&cmid=1268`. The page header includes the Ratalakshmi Engineering College logo and the user name 'JAMI SAI AKSHAYA 2023-CSE-B'. The main content area displays a table of quiz results. The table has four columns: a green checkmark, a score, a question number, and another green checkmark. The scores for the first two questions are 85 and 9. Below the table, it states 'Passed all tests!' and 'Correct'. The marks for this submission are 1.00/1.00. A 'Finish review' button is located at the bottom right of the content area.

✓	19		
✓	5	85	85
	10		
	22		
	85		
	100		
	129		
	100		
✓	7	9	9
	3		
	5		
	7		
	9		
	11		
	13		
	15		
	10		

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

[Finish review](#)

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "

Question 1
Correct
Mark 1.00 out of 1.00
Flag question

Problem Statement:
Given a sorted array of integers say arr[] and a number x. Write a recursive program using divide and conquer strategy to check if there exist two elements in the array whose sum = x. If there exist such two elements then return the numbers, otherwise print as "No".
Note: Write a Divide and Conquer Solution

Input Format
First Line Contains Integer n – Size of array
Next n lines Contains n numbers – Elements of an array
Last Line Contains Integer x – Sum Value

Output Format
First Line Contains Integer – Element1
Second Line Contains Integer – Element2 (Element 1 and Elements 2 together sums to value "x")

Answer: (penalty regime: 0 %)

```
1 #include <stdio.h>
2
3 void findPair(int arr[],int i,int j,int x){
4     if (i>=j){
5         printf("No\n");
6         return;
7     }
8     int sum=arr[i]+arr[j];
9     if (sum == x) {
10         printf("%d\n%d",arr[i],arr[j]);
11         return;
12     }
13     else if(sum<x)findPair(arr,i+1,j,x);
14     else findPair(arr,i,j-1,x);
15 }
16
17 int main(){
```

4.

```
14 int main(){
15     int n;scanf("%d",&n);int arr[n];
16     for (int i=0;i<n;i++)scanf("%d", &arr[i]);
17     int x;scanf("%d", &x);
18     findPair(arr,0,n-1,x);
19     return 0;
20 }
```

	Input	Expected	Got	
✓	4	4	4	✓
	2	10	10	
	4			
	8			
	10			
	14			
✓	5	No	No	✓
	2			
	4			
	6			
	8			
	10			
	100			

Passed all tests! ✓

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "

Question 1
Correct
Mark 1.00 out of 1.00
Flag question

Write a Program to Implement the Quick Sort Algorithm

Input Format:
The first line contains the no of elements in the list-n
The next n lines contain the elements.

Output:
Sorted list of elements

For example:

Input	Result
5 67 34 12 98 78	12 34 67 78 98

Answer:

```
1 #include<stdio.h>
2 void quick(int a[],int left,int right){
3     if(left<right){
4         int i=left,j=right;
5         int pivot=a[left];
6         while(i<j){
7             while(a[j]>pivot)j--;
8             while(i<j&& a[i]<=pivot)i++;
9             if(i<j){
10                int temp=a[i];
11                a[i]=a[j];
12                a[j]=temp;
13            }
14            a[left]=a[j];a[j]=pivot;
15            quick(a,left,j-1);
16            quick(a,j+1,right);
17        }
18    }
19 }
20 int main(){
21     int a;scanf("%d",&a);int arr[a];
22     for(int i=0;i<a;i++)scanf("%d",&arr[i]);
23     quick(arr,0,a-1);
24     for(int i=0;i<a;i++)printf("%d ",arr[i]);
25 }
```

5.

```
9     if(i<j){
10         int temp=a[i];
11         a[i]=a[j];
12         a[j]=temp;
13     }
14     a[left]=a[j];a[j]=pivot;
15     quick(a,left,j-1);
16     quick(a,j+1,right);
17 }
18 int main(){
19     int a;scanf("%d",&a);int arr[a];
20     for(int i=0;i<a;i++)scanf("%d",&arr[i]);
21     quick(arr,0,a-1);
22     for(int i=0;i<a;i++)printf("%d ",arr[i]);
23 }
```

	Input	Expected	Got
✓	5 67 34 12 98 78	12 34 67 78 98	12 34 67 78 98
✓	10 1 56 78 90 32 56 11 10 90 114	1 10 11 32 56 56 78 90 90 114	1 10 11 32 56 56 78 90 90 114
✓	12 9 8 7 6 5 4 3 2 1 10 11 90	1 2 3 4 5 6 7 8 9 10 11 90	1 2 3 4 5 6 7 8 9 10 11 90

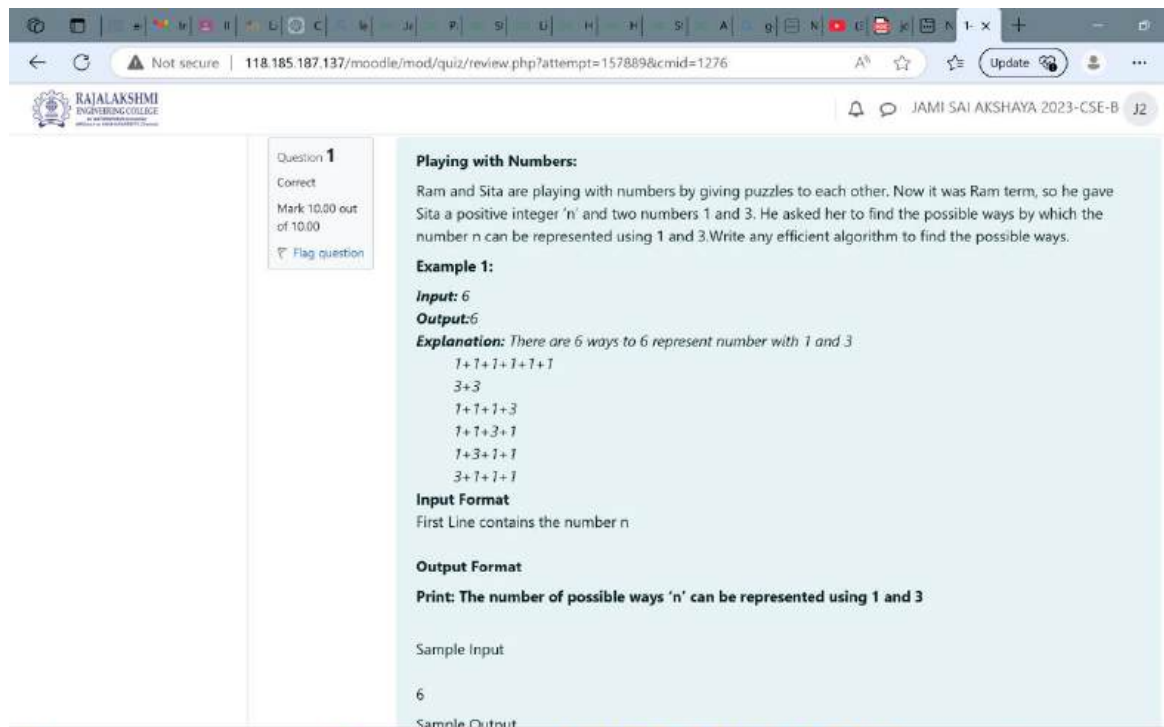
Passed all tests! ✓

MOODLE PROGRAMS (DAA)

**-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "**

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "



The screenshot shows a Moodle quiz review page for a user named JAMI SAI AKSHAYA. The quiz is titled "Playing with Numbers" and is worth 10.00 marks. The user has answered the question correctly. The question asks for the number of ways to represent a positive integer 'n' using 1 and 3. The example shows that for n=6, there are 6 ways: 1+1+1+1+1+1, 3+3, 1+1+1+3, 1+1+3+1, 1+3+1+1, and 3+1+1+1. The input format is a single line containing the number n. The output format is the number of possible ways 'n' can be represented using 1 and 3. The sample input is 6, and the sample output is 6.

Question 1
Correct
Mark 10.00 out of 10.00
Flag question

Playing with Numbers:
Ram and Sita are playing with numbers by giving puzzles to each other. Now it was Ram term, so he gave Sita a positive integer 'n' and two numbers 1 and 3. He asked her to find the possible ways by which the number n can be represented using 1 and 3. Write any efficient algorithm to find the possible ways.

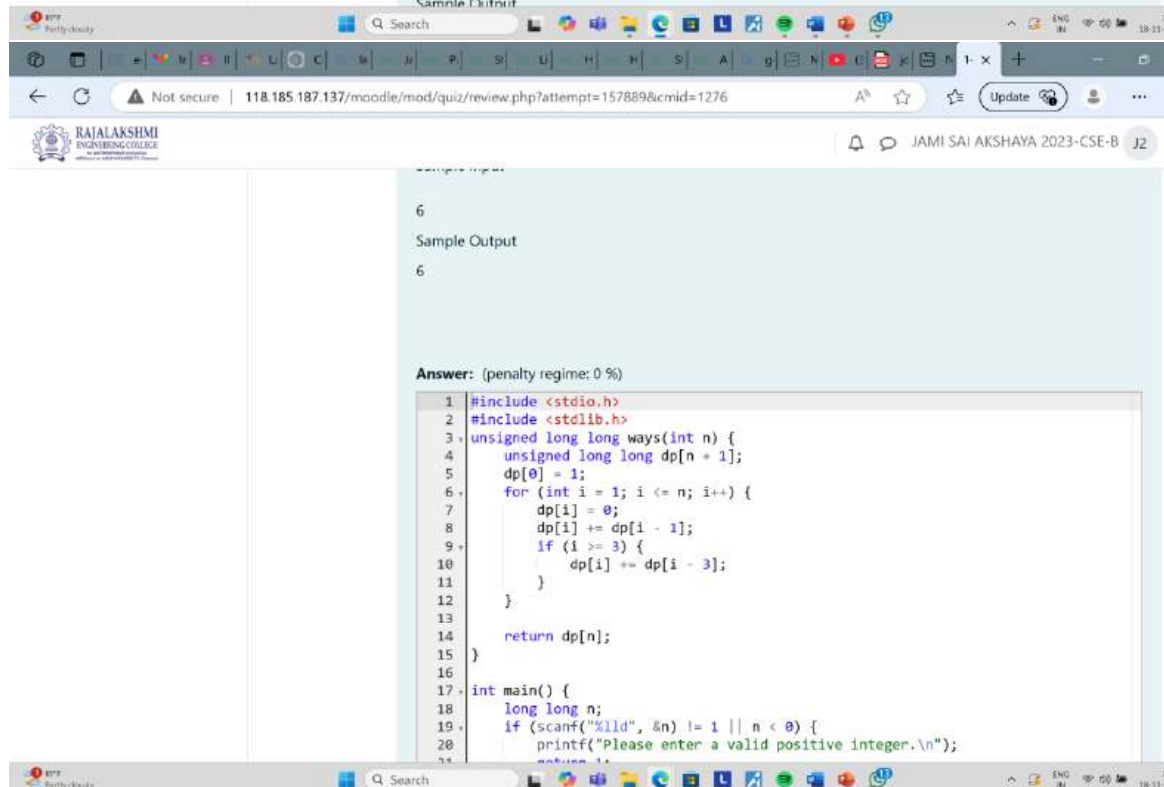
Example 1:
Input: 6
Output: 6
Explanation: There are 6 ways to 6 represent number with 1 and 3
1+1+1+1+1+1
3+3
1+1+1+3
1+1+3+1
1+3+1+1
3+1+1+1

Input Format
First Line contains the number n

Output Format
Print: The number of possible ways 'n' can be represented using 1 and 3

Sample Input
6
Sample Output
6

1.



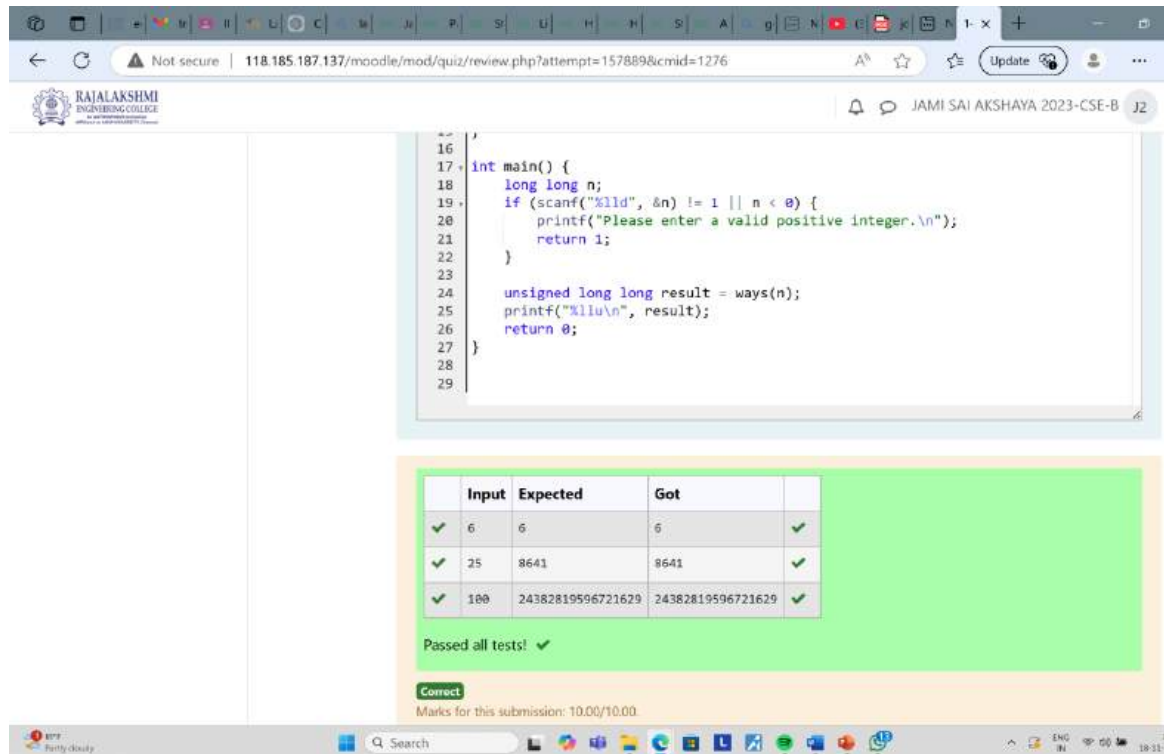
The screenshot shows a C++ code solution for the 'Playing with Numbers' problem. The code uses dynamic programming to calculate the number of ways to represent a positive integer 'n' using 1 and 3. The code is as follows:

```
1 #include <stdio.h>
2 #include <stdlib.h>
3 unsigned long long ways(int n) {
4     unsigned long long dp[n + 1];
5     dp[0] = 1;
6     for (int i = 1; i <= n; i++) {
7         dp[i] = 0;
8         dp[i] += dp[i - 1];
9         if (i >= 3) {
10             dp[i] += dp[i - 3];
11         }
12     }
13     return dp[n];
14 }
15
16 int main() {
17     long long n;
18     if (scanf("%lld", &n) != 1 || n < 0) {
19         printf("Please enter a valid positive integer.\n");
20         return 1;
21     }
22     printf("%lld", ways(n));
23 }
```

The code defines a function 'ways' that takes an integer 'n' and returns the number of ways to represent 'n' using 1 and 3. The function uses a dynamic programming array 'dp' to store the results of subproblems. The base case is 'dp[0] = 1'. For each 'i' from 1 to 'n', 'dp[i]' is calculated as the sum of 'dp[i-1]' and 'dp[i-3]' (if 'i' is greater than or equal to 3). The 'main' function reads the input 'n' and prints the result of 'ways(n)'.

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "



The screenshot shows a Moodle quiz review interface. The browser address bar indicates the URL: `118.185.187.137/moodle/mod/quiz/review.php?attempt=157889&cmid=1276`. The page header includes the RATA LAKSHMI ENGINEERING COLLEGE logo and the user name JAMI SAI AKSHAYA 2023-CSE-B.

The code editor displays the following C++ code:

```
16  
17 int main() {  
18     long long n;  
19     if (scanf("%lld", &n) != 1 || n < 0) {  
20         printf("Please enter a valid positive integer.\n");  
21         return 1;  
22     }  
23  
24     unsigned long long result = ways(n);  
25     printf("%llu\n", result);  
26     return 0;  
27 }  
28  
29
```

Below the code editor, a table shows the test results:

	Input	Expected	Got	
✓	6	6	6	✓
✓	25	8641	8641	✓
✓	100	24382819596721629	24382819596721629	✓

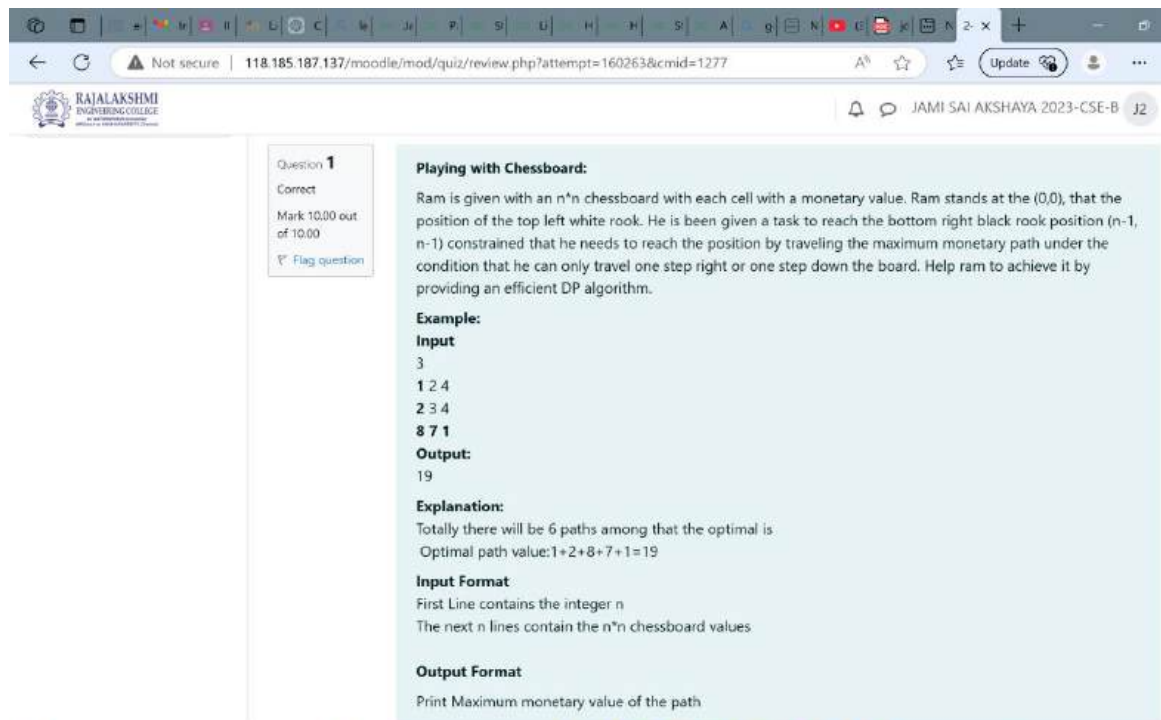
Passed all tests! ✓

Correct

Marks for this submission: 10.00/10.00

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "



The screenshot shows a Moodle quiz review page for a question titled "Playing with Chessboard". The question is marked as "Correct" with a score of 10.00 out of 10.00. The question text describes a problem where Ram is given an $n \times n$ chessboard with monetary values in each cell. He starts at (0,0) and needs to reach (n-1, n-1) by traveling the maximum monetary path, moving only one step right or one step down. An example is provided with input values and the resulting output path value of 19. The explanation states there are 6 paths and the optimal path value is 19. The input format specifies the first line is the integer n, and the next n lines contain the chessboard values. The output format requires printing the maximum monetary value of the path.

Question 1
Correct
Mark 10.00 out of 10.00
Flag question

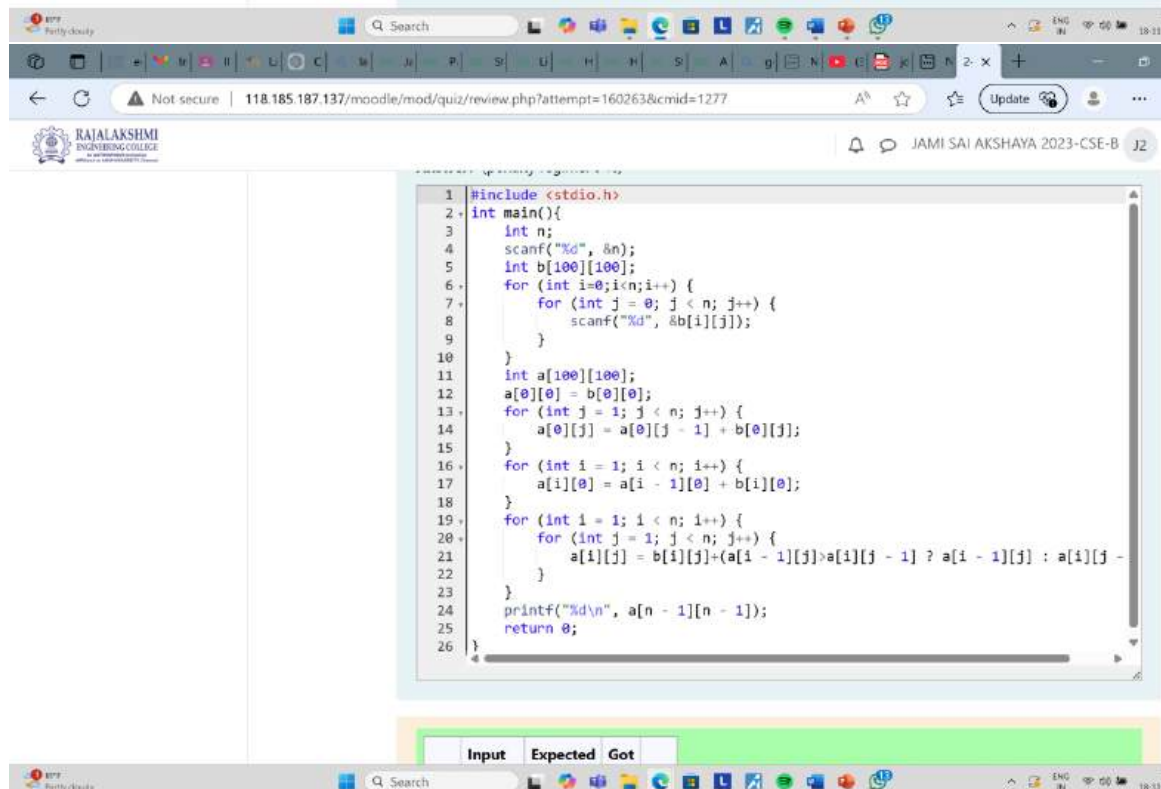
Playing with Chessboard:
Ram is given with an $n \times n$ chessboard with each cell with a monetary value. Ram stands at the (0,0), that is the position of the top left white rook. He is given a task to reach the bottom right black rook position (n-1, n-1) constrained that he needs to reach the position by traveling the maximum monetary path under the condition that he can only travel one step right or one step down the board. Help Ram to achieve it by providing an efficient DP algorithm.

Example:
Input
3
1 2 4
2 3 4
8 7 1
Output:
19
Explanation:
Totally there will be 6 paths among that the optimal is
Optimal path value: $1+2+8+7+1=19$

Input Format
First Line contains the integer n
The next n lines contain the $n \times n$ chessboard values

Output Format
Print Maximum monetary value of the path

2.



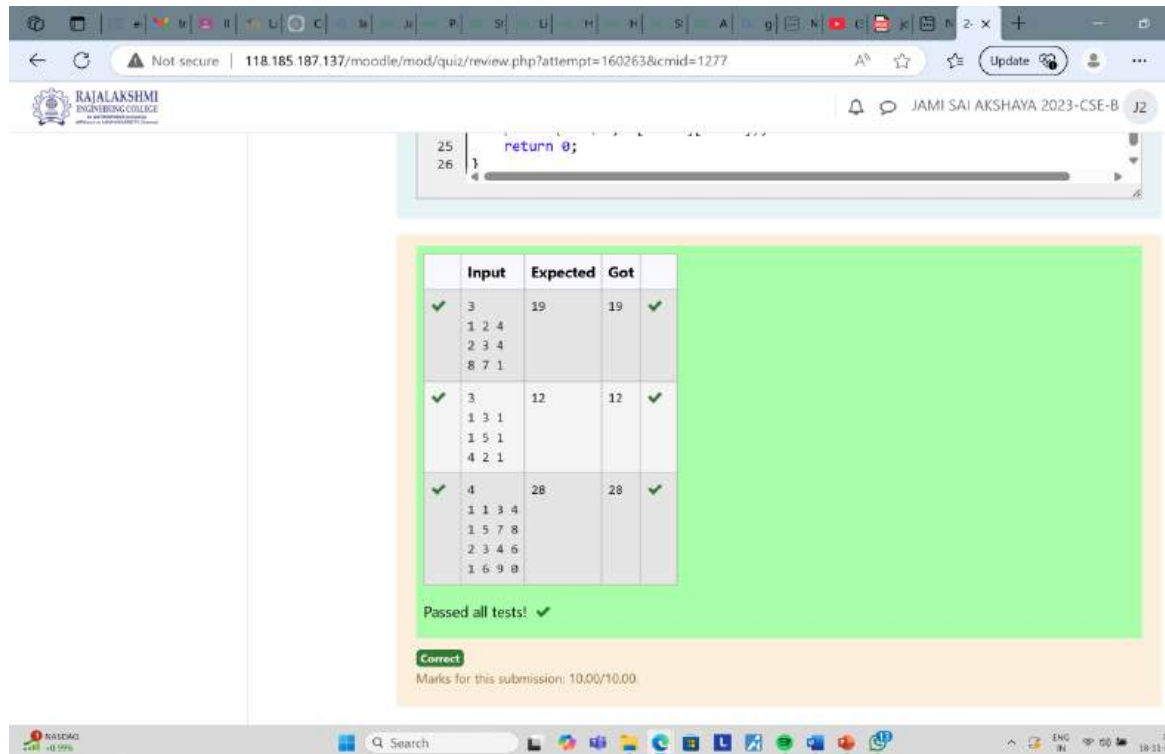
The screenshot shows a C++ code editor with a solution for the chessboard problem. The code uses a 2D array 'a' to store the maximum monetary path value for each cell (i, j). It initializes the first row and then iterates through the rest of the rows, calculating the maximum path value for each cell based on the values from the cell above and the cell to the left. The final output is the maximum path value for the bottom-right cell (n-1, n-1).

```
1 #include <stdio.h>
2 int main(){
3     int n;
4     scanf("%d", &n);
5     int b[100][100];
6     for (int i=0; i<n; i++) {
7         for (int j = 0; j < n; j++) {
8             scanf("%d", &b[i][j]);
9         }
10    }
11    int a[100][100];
12    a[0][0] = b[0][0];
13    for (int j = 1; j < n; j++) {
14        a[0][j] = a[0][j - 1] + b[0][j];
15    }
16    for (int i = 1; i < n; i++) {
17        a[i][0] = a[i - 1][0] + b[i][0];
18    }
19    for (int i = 1; i < n; i++) {
20        for (int j = 1; j < n; j++) {
21            a[i][j] = b[i][j] + (a[i - 1][j] > a[i][j - 1] ? a[i - 1][j] : a[i][j - 1]);
22        }
23    }
24    printf("%d\n", a[n - 1][n - 1]);
25    return 0;
26 }
```

Input Expected Got

MOODLE PROGRAMS (DAA)

-BY “ NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B ”



The screenshot shows a Moodle quiz review page for a user named JAMI SAI AKSHAYA. The page displays a C program snippet and its execution results for three test cases.

```
25     return 0;  
26 }
```

	Input	Expected	Got	
✓	3 1 2 4 2 3 4 8 7 1	19	19	✓
✓	3 1 3 1 1 5 1 4 2 1	12	12	✓
✓	4 1 1 3 4 1 5 7 8 2 3 4 6 1 6 9 8	28	28	✓

Passed all tests! ✓

Correct
Marks for this submission: 10.00/10.00

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "

Question 1
Correct
Mark 1.00 out of 1.00
Flag question

Given two strings find the length of the common longest subsequence(need not be contiguous) between the two.

Example:

s1: ggtabe
s2: tgatasb

s1 a g g t a b
s2 g x t x a y b

The length is 4
Solving it using Dynamic Programming
For example:

Input	Result
aab	2
azb	

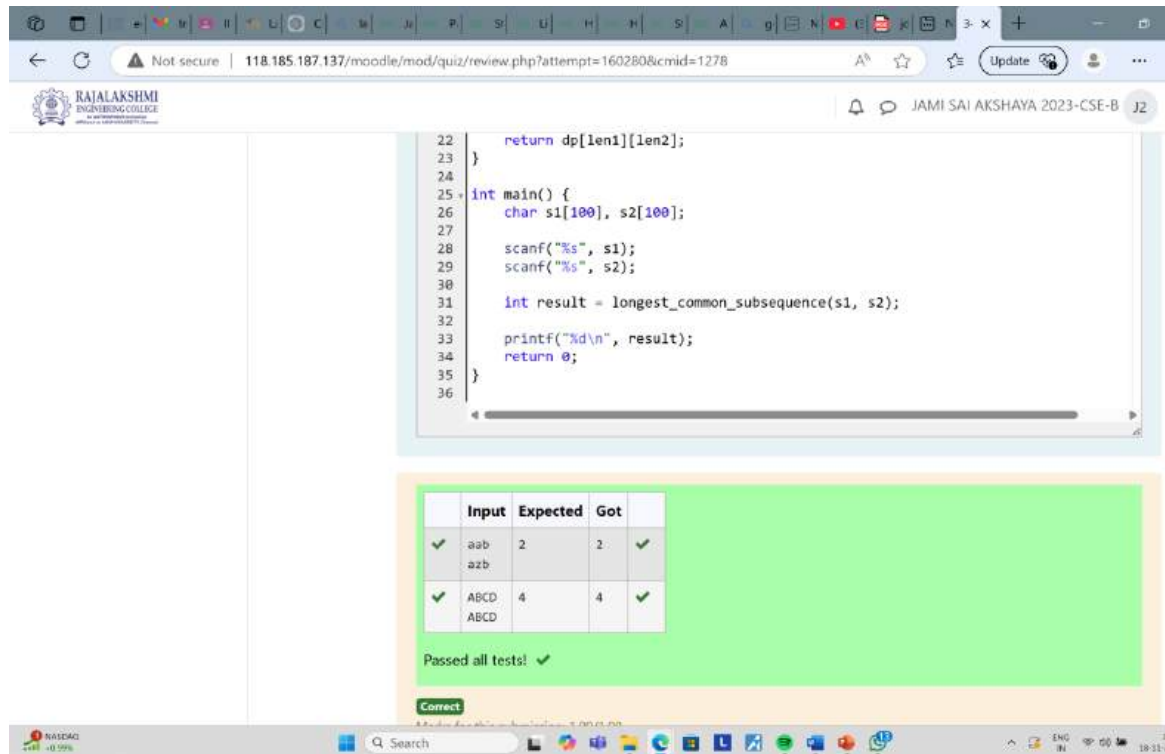
3.

Answer: (penalty regime: 0 %)

```
1 #include <stdio.h>
2 #include <string.h>
3
4 int longest_common_subsequence(char *s1, char *s2) {
5     int len1 = strlen(s1);
6     int len2 = strlen(s2);
7
8     int dp[len1 + 1][len2 + 1];
9
10    for (int i = 0; i <= len1; i++) {
11        for (int j = 0; j <= len2; j++) {
12            if (i == 0 || j == 0) {
13                dp[i][j] = 0;
14            } else if (s1[i - 1] == s2[j - 1]) {
15                dp[i][j] = dp[i - 1][j - 1] + 1;
16            } else {
17                dp[i][j] = (dp[i - 1][j] > dp[i][j - 1]) ? dp[i - 1][j] : dp[i][j - 1];
18            }
19        }
20    }
21
22    return dp[len1][len2];
23 }
24
25 int main() {
26     char s1[100], s2[100];
27
28     scanf("%s", s1);
29     scanf("%s", s2);
30
31     int result = longest_common_subsequence(s1, s2);
```

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "



The screenshot displays a Moodle quiz review interface. The browser address bar shows the URL: `118.185.187.137/moodle/mod/quiz/review.php?attempt=160280&cmid=1278`. The page header includes the Rata Lakshmi Engineering College logo and the user name "JAMI SAI AKSHAYA 2023-CSE-B".

The code editor shows the following C++ code:

```
22     return dp[len1][len2];
23 }
24
25 int main() {
26     char s1[100], s2[100];
27
28     scanf("%s", s1);
29     scanf("%s", s2);
30
31     int result = longest_common_subsequence(s1, s2);
32
33     printf("%d\n", result);
34     return 0;
35 }
36
```

Below the code, a table displays test cases:

	Input	Expected	Got	
✓	aab azb	2	2	✓
✓	ABCD ABCD	4	4	✓

Below the table, a green box contains the message: "Passed all tests! ✓". A "Correct" button is visible at the bottom of the test case section.

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "

Question 1
Correct
Mark 1.00 out of 1.00
Flag question

Problem statement
Find the length of the Longest Non-decreasing Subsequence in a given Sequence.
Eg:
Input:9
Sequence: [-1,3,4,5,2,2,2,3]
the subsequence is [-1,2,2,2,3]
Output:6
Answer: (penalty regime: 0 %)

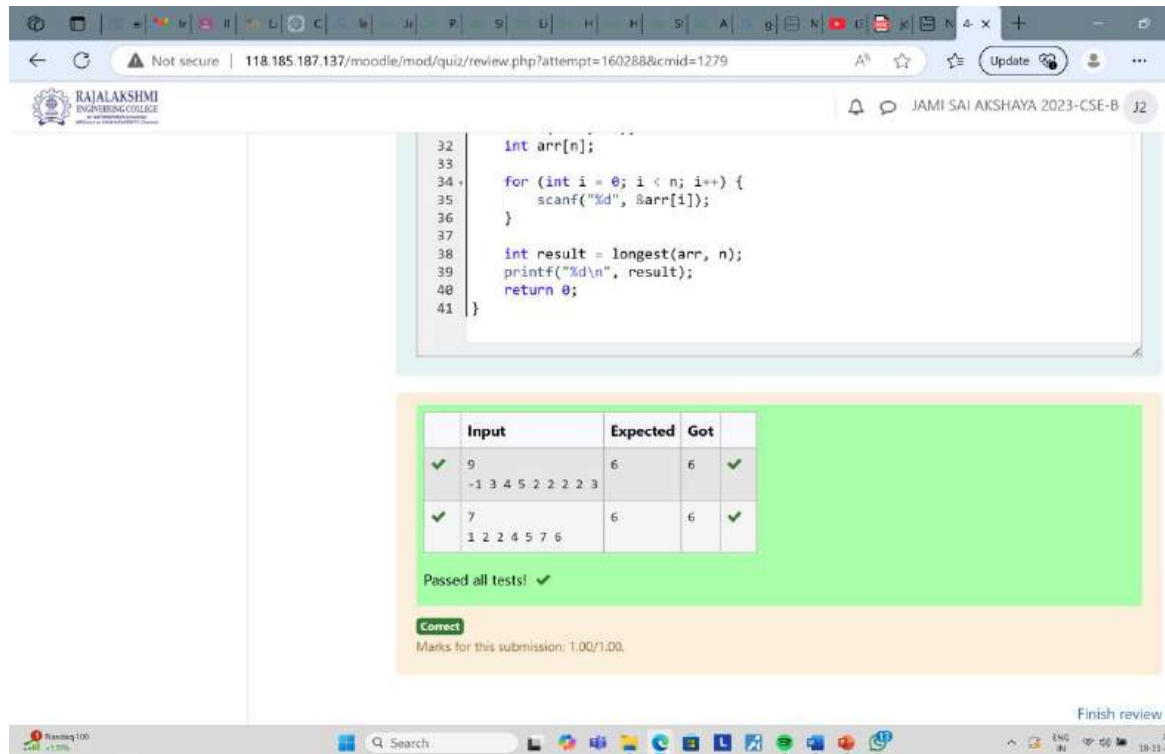
```
1 #include <stdio.h>
2
3 int longest(int arr[], int n) {
4     if (n == 0) return 0;
5
6     int dp[n];
7     for (int i = 0; i < n; i++) {
8         dp[i] = 1;
9     }
10
11     for (int i = 1; i < n; i++) {
12         for (int j = 0; j < i; j++) {
13             if (arr[i] >= arr[j] && dp[i] < dp[j] + 1) {
14                 dp[i] = dp[j] + 1;
15             }
16         }
17     }
18
19     int max_length = 0;
20     for (int i = 0; i < n; i++) {
21         if (dp[i] > max_length) {
22             max_length = dp[i];
23         }
24     }
25
26     return max_length;
27 }
28
29 int main() {
30     int n;
31     scanf("%d", &n);
32     int arr[n];
33
34     for (int i = 0; i < n; i++) {
35         scanf("%d", &arr[i]);
36     }
37
38     int result = longest(arr, n);
39     printf("%d\n", result);
40     return 0;
41 }
```

4.

```
11     for (int i = 1; i < n; i++) {
12         for (int j = 0; j < i; j++) {
13             if (arr[i] >= arr[j] && dp[i] < dp[j] + 1) {
14                 dp[i] = dp[j] + 1;
15             }
16         }
17     }
18
19     int max_length = 0;
20     for (int i = 0; i < n; i++) {
21         if (dp[i] > max_length) {
22             max_length = dp[i];
23         }
24     }
25
26     return max_length;
27 }
28
29 int main() {
30     int n;
31     scanf("%d", &n);
32     int arr[n];
33
34     for (int i = 0; i < n; i++) {
35         scanf("%d", &arr[i]);
36     }
37
38     int result = longest(arr, n);
39     printf("%d\n", result);
40     return 0;
41 }
```

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "



Not secure | 118.185.187.137/moodle/mod/quiz/review.php?attempt=160288&cmid=1279

RAJALAKSHMI ENGINEERING COLLEGE

JAMI SAI AKSHAYA 2023-CSE-B J2

```
32 int arr[n];
33
34 for (int i = 0; i < n; i++) {
35     scanf("%d", &arr[i]);
36 }
37
38 int result = longest(arr, n);
39 printf("%d\n", result);
40 return 0;
41 }
```

	Input	Expected	Got	
✓	9 -1 3 4 5 2 2 2 2 3	6	6	✓
✓	7 1 2 2 4 5 7 6	6	6	✓

Passed all tests! ✓

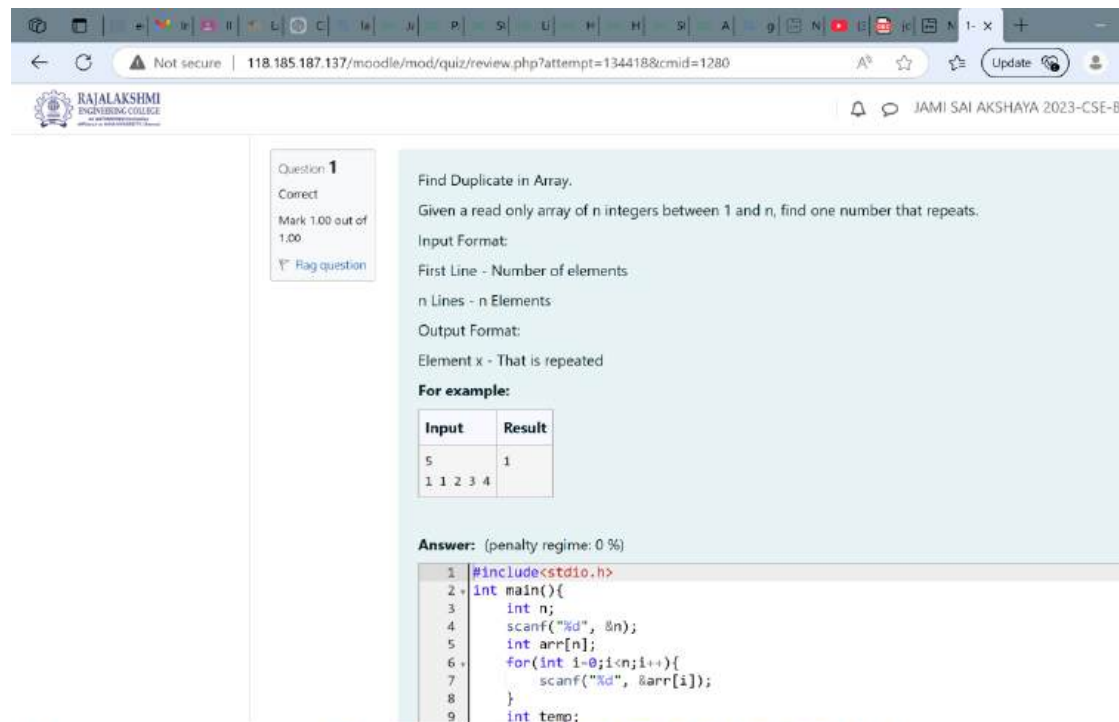
Correct

Marks for this submission: 1.00/1.00

Finish review

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "



The screenshot shows a Moodle quiz review interface. On the left, a sidebar indicates 'Question 1' is 'Correct' with a mark of '1.00 out of 1.00'. The main area contains the question text: 'Find Duplicate in Array. Given a read only array of n integers between 1 and n, find one number that repeats.' It specifies the input format as 'First Line - Number of elements' and 'n Lines - n Elements', and the output format as 'Element x - That is repeated'. An example is provided with input '5' and '1 1 2 3 4', resulting in '1'. Below the example, the user's answer is shown as a C++ code snippet for finding a duplicate in an array.

Question 1
Correct
Mark 1.00 out of 1.00
Flag question

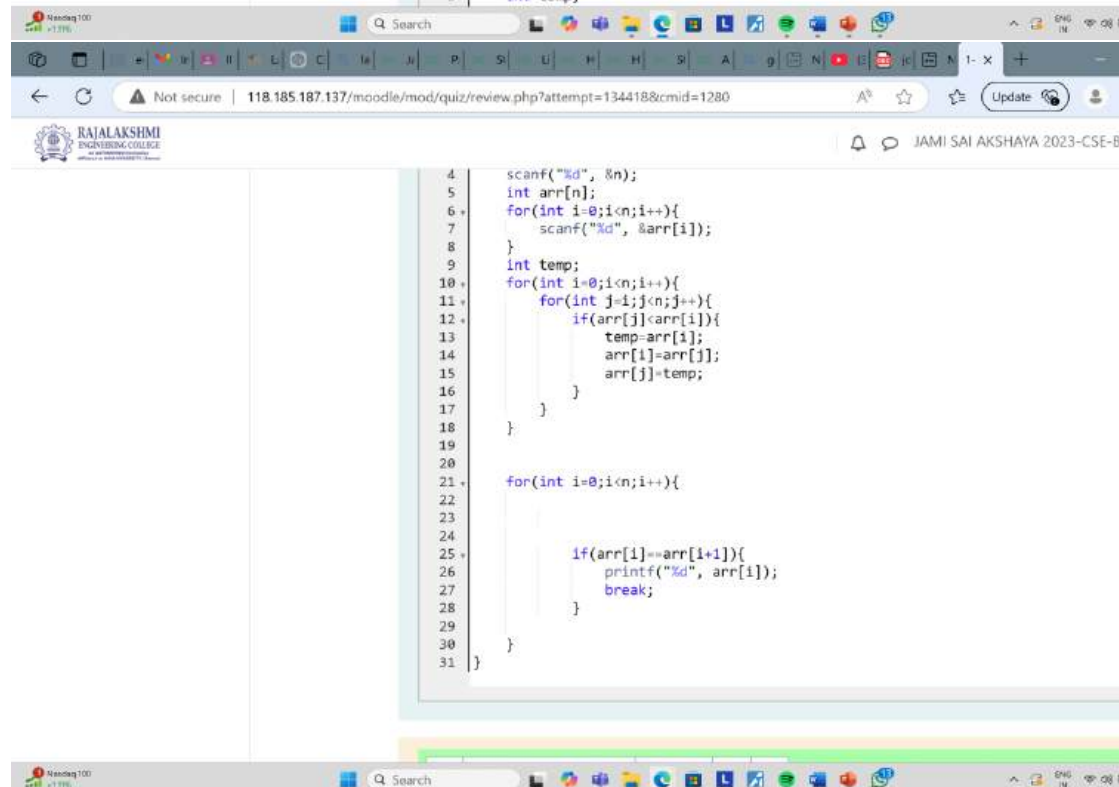
Find Duplicate in Array.
Given a read only array of n integers between 1 and n, find one number that repeats.
Input Format:
First Line - Number of elements
n Lines - n Elements
Output Format:
Element x - That is repeated
For example:

Input	Result
5 1 1 2 3 4	1

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main(){
3     int n;
4     scanf("%d", &n);
5     int arr[n];
6     for(int i=0;i<n;i++){
7         scanf("%d", &arr[i]);
8     }
9     int temp;
```

1.

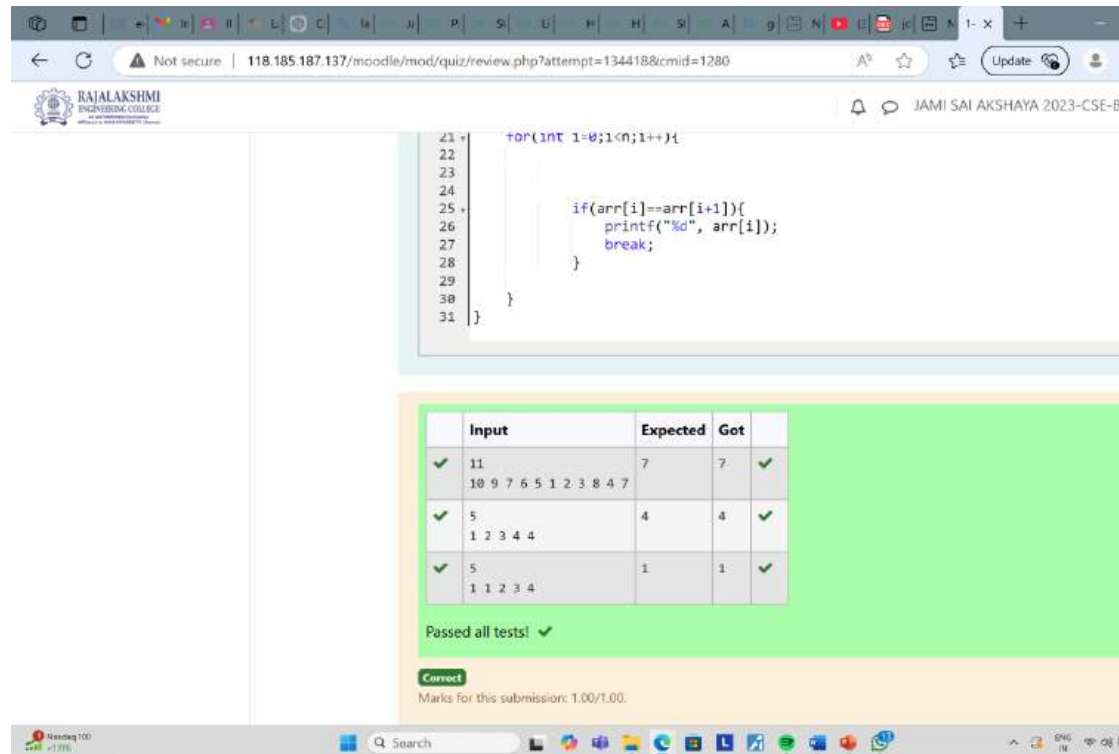


This block shows the continuation of the C++ code from the previous screenshot, specifically the nested loops used to find a duplicate element in the array.

```
10     for(int i=0;i<n;i++){
11         for(int j=i+1;j<n;j++){
12             if(arr[i]==arr[j]){
13                 temp=arr[i];
14                 arr[i]=arr[j];
15                 arr[j]=temp;
16             }
17         }
18     }
19
20     for(int i=0;i<n;i++){
21
22         if(arr[i]==arr[i+1]){
23             printf("%d", arr[i]);
24             break;
25         }
26     }
27 }
28
29
30
31 }
```


MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "



The screenshot shows a Moodle quiz review page for a user named JAMI SAI AKSHAYA. The page displays a C program that finds the maximum element in an array. The program uses a for loop to iterate through the array and a break statement to exit the loop once the maximum element is found. The test results table shows three test cases, all of which passed. The program is marked as correct, and the marks for this submission are 1.00/1.00.

```
21 + for(int i=0;i<n;i++){
22 +
23 +
24 +
25 +     if(arr[i]==arr[i+1]){
26 +         printf("%d", arr[i]);
27 +         break;
28 +     }
29 +
30 + }
31 }
```

	Input	Expected	Got	
✓	11 10 9 7 6 5 1 2 3 8 4 7	7	7	✓
✓	5 1 2 3 4 4	4	4	✓
✓	5 1 1 2 3 4	1	1	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "

The screenshot shows a Moodle quiz review page for a question titled "Find Duplicate in Array". The question is marked as "Correct" and worth 1.00 mark. The input format requires the number of elements on the first line and the elements on subsequent lines. The output format is the repeated element. An example shows an input of 5 elements [1, 1, 2, 3, 4] resulting in the output 1. The user's answer is a C program that reads the input and prints the first element, which is incorrect.

Question 1
Correct
Mark 1.00 out of 1.00
[Flag question](#)

Find Duplicate in Array.
Given a read only array of n integers between 1 and n , find one number that repeats.

Input Format:
First Line - Number of elements
 n Lines - n Elements

Output Format:
Element x - That is repeated

For example:

Input	Result
5 1 1 2 3 4	1

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main(){
3     int n;
4     scanf("%d", &n);
5     int arr[n];
6     for(int i=0;i<n;i++){
7         scanf("%d", &arr[i]);
8     }
9     int temp;
10    for(int i=0;i<n;i++){
```

2.

The screenshot shows the same Moodle quiz review page, but with a different C program pasted as the answer. This program uses a sorting-based approach to find the duplicate element.

```
4     scanf("%d", &n);
5     int arr[n];
6     for(int i=0;i<n;i++){
7         scanf("%d", &arr[i]);
8     }
9     int temp;
10    for(int i=0;i<n;i++){
11        for(int j=i+1;j<n;j++){
12            if(arr[i]<arr[j]){
13                temp=arr[i];
14                arr[i]=arr[j];
15                arr[j]=temp;
16            }
17        }
18    }
19
20    for(int i=0;i<n;i++){
21
22
23
24        if(arr[i]==arr[i+1]){
25            printf("%d", arr[i]);
26            break;
27        }
28    }
29
30 }
31 }
```

MOODLE PROGRAMS (DAA)

-BY “ NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B ”

The screenshot shows a Moodle quiz review page for a C program. The browser address bar indicates the URL: `118.185.187.137/moodle/mod/quiz/review.php?attempt=134423&cmid=1281`. The page header includes the logo of RAJALAKSHMI ENGINEERING COLLEGE and the user name JAMI SAI AKSHAYA 2023-CSE-B.

The code editor shows the following C program:

```
25  
26  
27  
28  
29  
30  
31  
if(arr[i]==arr[i+1]){  
    printf("%d", arr[i]);  
    break;  
}
```

The test cases table is as follows:

	Input	Expected	Got	
✓	11 10 9 7 6 5 1 2 3 8 4 7	7	7	✓
✓	5 1 2 3 4 4	4	4	✓
✓	5 1 1 2 3 4	1	1	✓

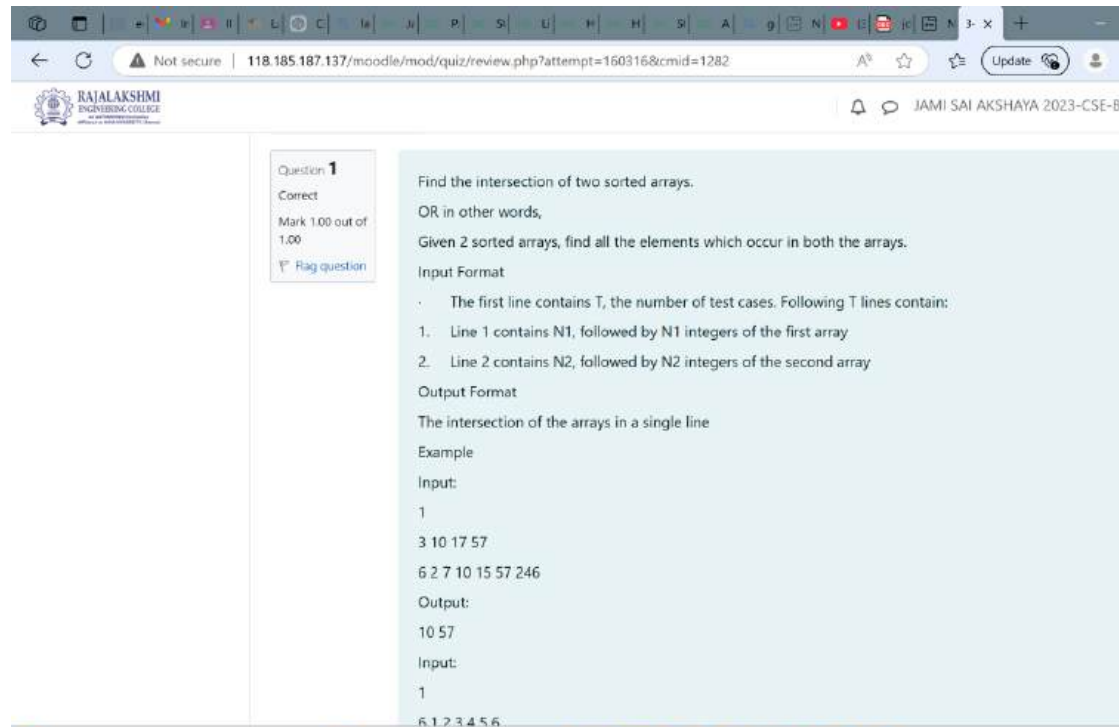
Passed all tests! ✓

Correct
Marks for this submission: 1.00/1.00.

Finish

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "



The screenshot shows a Moodle quiz review page for a question titled "Find the intersection of two sorted arrays." The question is marked as correct and worth 1.00 out of 1.00. The input format specifies that the first line contains the number of test cases T, followed by T lines, each containing two sorted arrays. The output format requires the intersection of the arrays to be printed in a single line. An example is provided with input "1\n3 10 17 57\n6 2 7 10 15 57 246" and output "10 57".

Question 1
Correct
Mark 1.00 out of 1.00
Flag question

Find the intersection of two sorted arrays.
OR in other words,
Given 2 sorted arrays, find all the elements which occur in both the arrays.

Input Format

The first line contains T, the number of test cases. Following T lines contain:

- Line 1 contains N1, followed by N1 integers of the first array
- Line 2 contains N2, followed by N2 integers of the second array

Output Format

The intersection of the arrays in a single line

Example

Input:

```
1
3 10 17 57
6 2 7 10 15 57 246
```

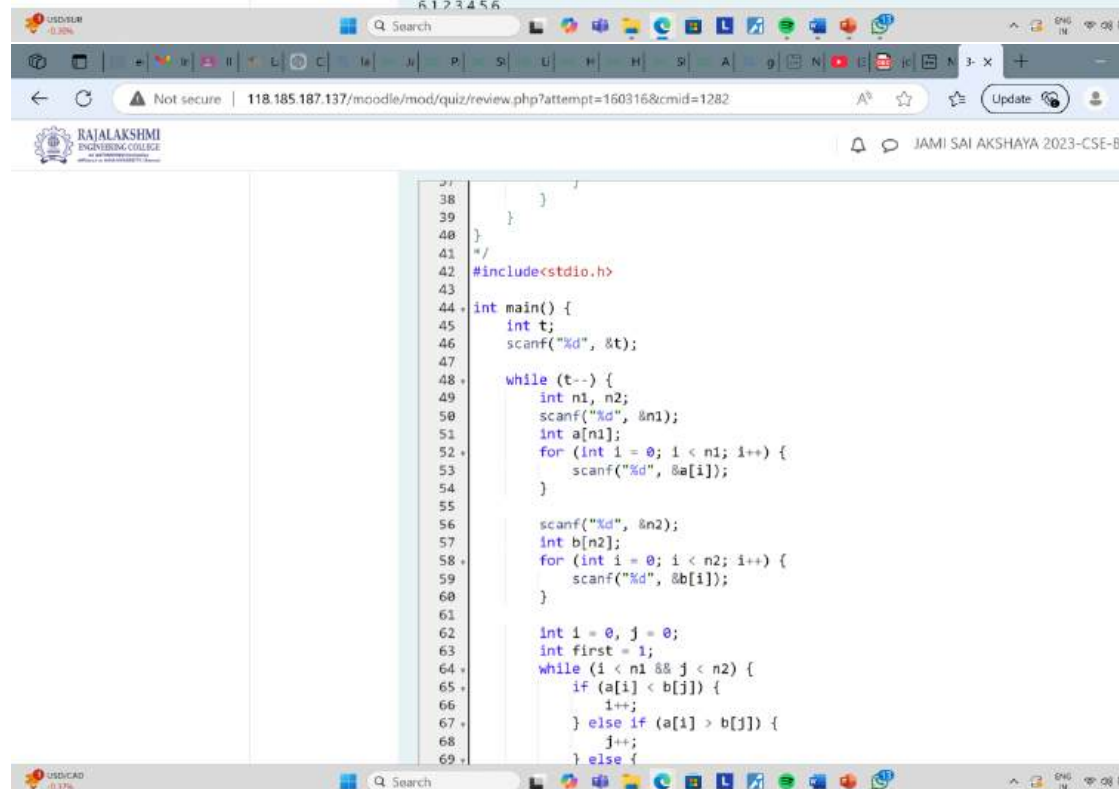
Output:

```
10 57
```

Input:

```
1
6 1 2 3 4 5 6
```

3.



The screenshot shows a C++ code editor with a program to find the intersection of two sorted arrays. The code uses two pointers, first and second, to traverse the arrays and find common elements.

```
38 }
39 }
40 }
41 */
42 #include<stdio.h>
43
44 int main() {
45     int t;
46     scanf("%d", &t);
47
48     while (t--) {
49         int n1, n2;
50         scanf("%d", &n1);
51         int a[n1];
52         for (int i = 0; i < n1; i++) {
53             scanf("%d", &a[i]);
54         }
55
56         scanf("%d", &n2);
57         int b[n2];
58         for (int i = 0; i < n2; i++) {
59             scanf("%d", &b[i]);
60         }
61
62         int i = 0, j = 0;
63         int first = 1;
64         while (i < n1 && j < n2) {
65             if (a[i] < b[j]) {
66                 i++;
67             } else if (a[i] > b[j]) {
68                 j++;
69             } else {
70                 printf("%d ", a[i]);
71                 i++;
72                 j++;
73             }
74         }
75         printf("\n");
76     }
77 }
```

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "

```
62 int i = 0, j = 0;
63 int first = 1;
64 while (i < n1 && j < n2) {
65     if (a[i] < b[j]) {
66         i++;
67     } else if (a[i] > b[j]) {
68         j++;
69     } else {
70         if (first) {
71             printf("%d", a[i]);
72             first = 0;
73         } else {
74             printf(" %d", a[i]);
75         }
76         i++;
77         j++;
78     }
79     printf("\n");
80 }
81 }
82 return 0;
83 }
84 }
85 }
86 }
87 }
88 }
89 }
```

```
82 return 0;
83 }
84 }
85 }
86 }
87 }
88 }
89 }
```

	Input	Expected	Got	
✓	1 3 10 17 57 6 2 7 10 15 57 246	10 57	10 57	✓
✓	1 6 1 2 3 4 5 6 2 1 6	1 6	1 6	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "

Question 1
Correct
Mark 1.00 out of 1.00
Flag question

Find the intersection of two sorted arrays.
OR in other words,
Given 2 sorted arrays, find all the elements which occur in both the arrays.

Input Format

The first line contains T, the number of test cases. Following T lines contain:

- Line 1 contains N1, followed by N1 integers of the first array
- Line 2 contains N2, followed by N2 integers of the second array

Output Format

The intersection of the arrays in a single line

Example

Input:

```
1
3 10 17 57
6 2 7 10 15 57 246
```

Output:

```
10 57
```

Input:

```
1
6 1 2 3 4 5 6
```

4.

1 6

For example:

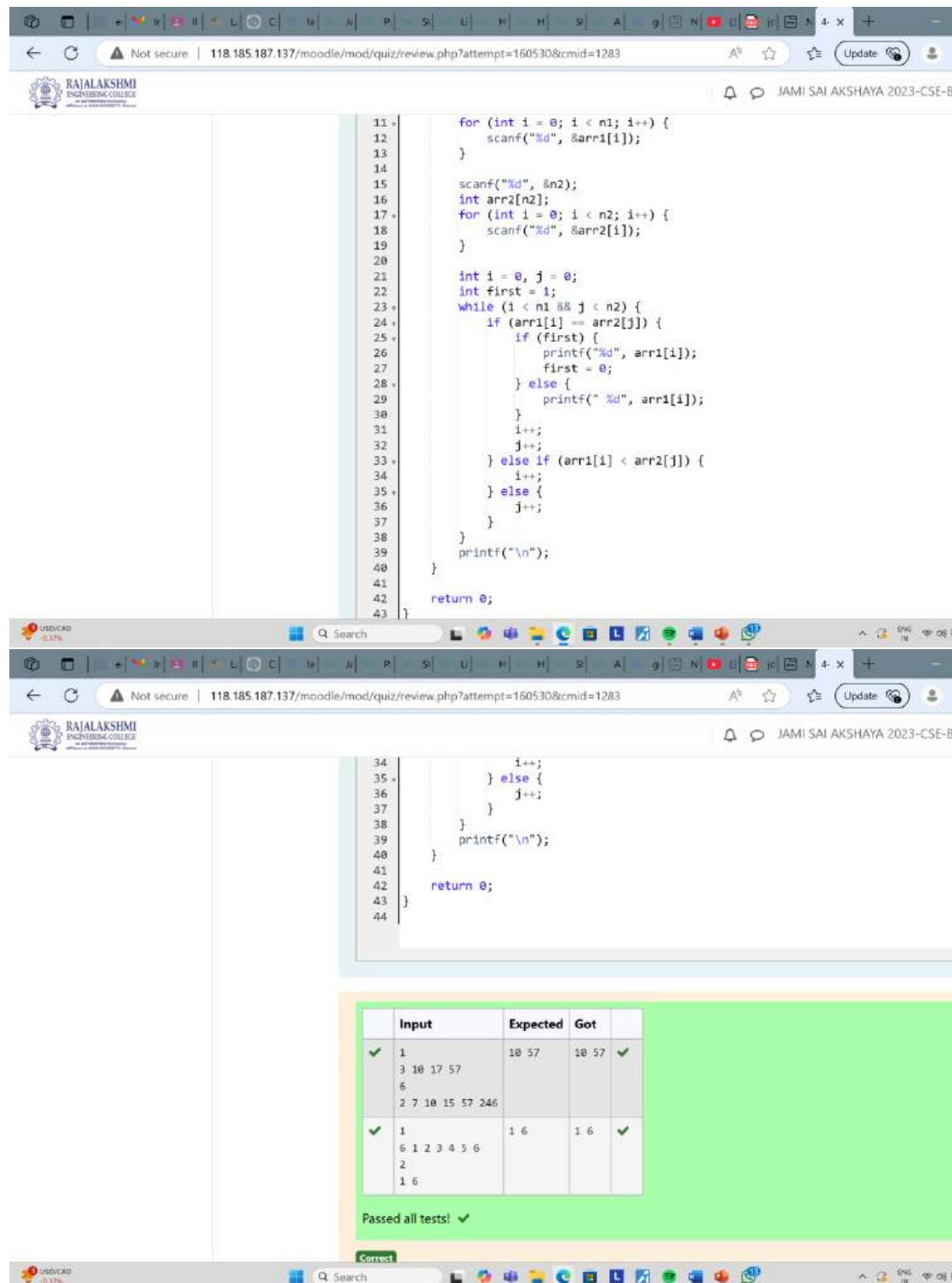
Input	Result
1 3 10 17 57 6 2 7 10 15 57 246	10 57

Answer: (penalty regime: 0 %)

```
1 #include <stdio.h>
2
3 int main() {
4     int t;
5     scanf("%d", &t);
6
7     while (t--) {
8         int n1, n2;
9         scanf("%d", &n1);
10        int arr1[n1];
11        for (int i = 0; i < n1; i++) {
12            scanf("%d", &arr1[i]);
13        }
14
15        scanf("%d", &n2);
16        int arr2[n2];
17        for (int i = 0; i < n2; i++) {
```

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "



```
11 for (int i = 0; i < n1; i++) {
12     scanf("%d", &arr1[i]);
13 }
14
15 scanf("%d", &n2);
16 int arr2[n2];
17 for (int i = 0; i < n2; i++) {
18     scanf("%d", &arr2[i]);
19 }
20
21 int i = 0, j = 0;
22 int first = 1;
23 while (i < n1 && j < n2) {
24     if (arr1[i] == arr2[j]) {
25         if (first) {
26             printf("%d", arr1[i]);
27             first = 0;
28         } else {
29             printf(" %d", arr1[i]);
30         }
31         i++;
32         j++;
33     } else if (arr1[i] < arr2[j]) {
34         i++;
35     } else {
36         j++;
37     }
38     printf("\n");
39 }
40 }
41
42 return 0;
43 }
```

	Input	Expected	Got	
✓	1 3 10 17 57 6 2 7 10 15 57 246	10 57	10 57	✓
✓	1 6 1 2 3 4 5 6 2 1 6	1 6	1 6	✓

Passed all tests! ✓

Correct

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "

Question 1
Correct
Mark 1.00 out of 1.00
Flag question

Given an array A of sorted integers and another non negative integer k, find if there exists 2 indices i and j such that $A[i] - A[j] = k$, $i \neq j$.

Input Format:
First Line n - Number of elements in an array
Next n Lines - N elements in the array
k - Non - Negative Integer

Output Format:
1 - If pair exists
0 - If no pair exists

Explanation for the given Sample Testcases:
YES as $5 - 1 = 4$
So Return 1.

For example:

Input	Result
3	1
1 3 5	
4	

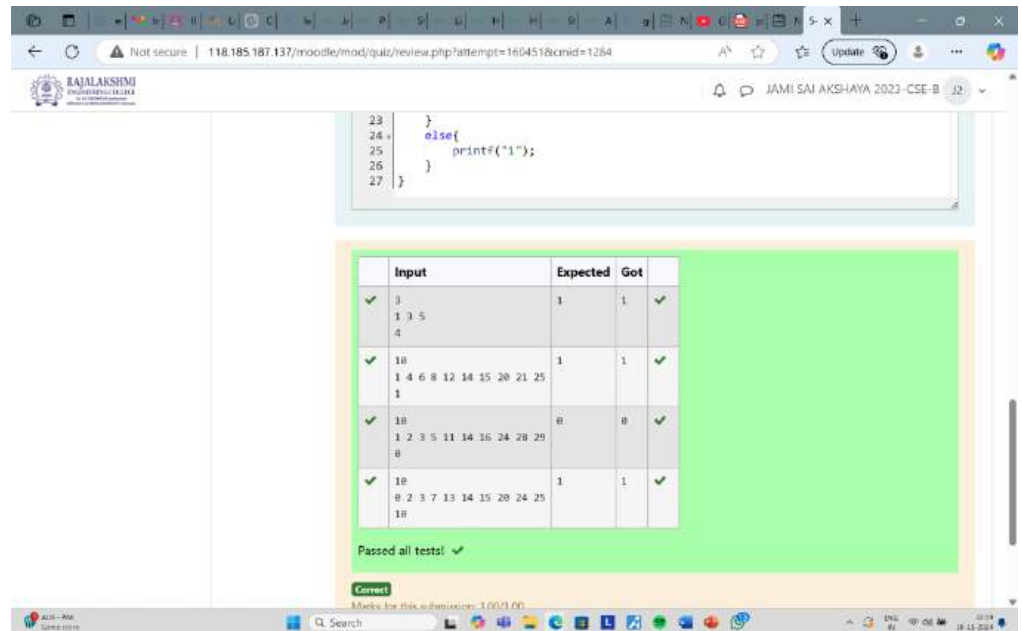
5.

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main(){
3     int n;
4     scanf("%d", &n);
5     int arr[n];
6     for(int i=0;i<n;i++){
7         scanf("%d", &arr[i]);
8     }
9     int k;
10    scanf("%d", &k);
11    int count=0;
12    for(int i=0;i<n;i++){
13        for(int j=0;j<n;j++){
14            if(i!=j){
15                if(arr[i]-arr[j]==k){
16                    count++;
17                }
18            }
19        }
20    }
21    if(count==0){
22        printf("0");
23    }
24    else{
25        printf("1");
26    }
27 }
```


MOODLE PROGRAMS (DAA)

-BY “ NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B ”



The screenshot shows a Moodle quiz review page for a user named JAMI SAI AKSHAYA. The page displays a C++ code snippet and a table of test results.

```
23 }  
24 + else{  
25     printf("1");  
26 }  
27 }
```

	Input	Expected	Got	
✓	3 1 3 5 4	1	1	✓
✓	10 1 4 6 8 12 14 15 20 21 25 1	1	1	✓
✓	18 1 2 3 5 11 14 16 24 28 29 0	0	0	✓
✓	18 0 2 3 7 13 14 15 20 24 25 18	1	1	✓

Passed all tests! ✓

Correct

Marked this submission as: 1.00/1.00

MOODLE PROGRAMS (DAA)

-BY " NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B "

The screenshot shows a Moodle quiz question page. The browser address bar indicates the URL: 118.185.187.137/moodle/mod/quiz/review.php?attempt=160532&cmid=1285. The page header includes the college name 'RAJALAKSHMI ENGINEERING COLLEGE' and the user 'JAMI SAI AKSHAYA 2023-CSE-B'. The question is titled 'Question 1' and is marked 'Correct' with a score of 'Mark 1.00 out of 1.00'. The question text asks: 'Given an array A of sorted integers and another non negative integer k, find if there exists 2 indices i and j such that $A[j] - A[i] = k$, $i \neq j$.' The input format specifies: 'First Line n - Number of elements in an array', 'Next n Lines - N elements in the array', and 'k - Non - Negative Integer'. The output format requires: '1 - If pair exists', '0 - If no pair exists'. An explanation for a sample test case is provided: 'YES as $5 - 1 = 4$. So Return 1.' A table for the example shows input values 3, 1 3 5, and 4, resulting in 1.

Question 1
Correct
Mark 1.00 out of 1.00
Flag question

Given an array A of sorted integers and another non negative integer k, find if there exists 2 indices i and j such that $A[j] - A[i] = k$, $i \neq j$.

Input Format:
First Line n - Number of elements in an array
Next n Lines - N elements in the array
k - Non - Negative Integer

Output Format:
1 - If pair exists
0 - If no pair exists

Explanation for the given Sample Testcase:
YES as $5 - 1 = 4$
So Return 1.

For example:

Input	Result
3	1
1 3 5	
4	

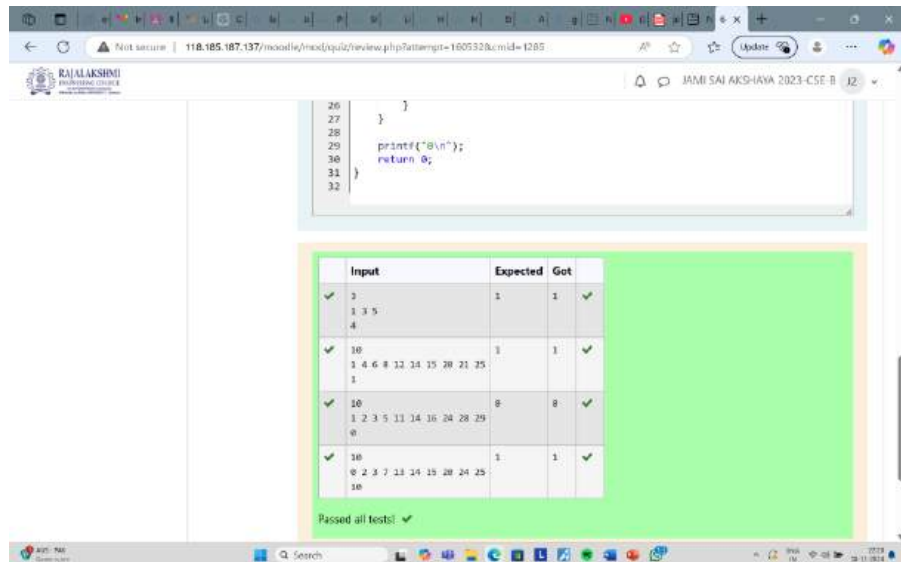
6.

The screenshot shows the answer page for the same question. The browser address bar is the same. The page header is identical. The answer is marked 'Answer: (penalty regime: 0 %)'.

```
1 #include <stdio.h>
2
3 int main() {
4     int n, k;
5     scanf("%d", &n);
6     int a[n];
7     for (int i = 0; i < n; i++) {
8         scanf("%d", &a[i]);
9     }
10    scanf("%d", &k);
11    int i = 0, j = 1;
12
13    while (j < n) {
14        if (a[j] - a[i] == k) {
15            printf("1\n");
16            return 0;
17        }
18
19        if (a[j] - a[i] < k) {
20            j++;
21        } else {
22            i++;
23            if (i == j) {
24                j++;
25            }
26        }
27    }
28    printf("0\n");
29    return 0;
30 }
```

MOODLE PROGRAMS (DAA)

-BY “ NAME: JAMI SAI AKSHAYA
ROLL NO: 230701121
DEPARTMENT-CSE-B ”



The screenshot shows a Moodle quiz review interface. At the top, a code editor displays a C program snippet:

```
26 }  
27 }  
28  
29 printf("%d\n");  
30 return 0;  
31 }  
32 }
```

Below the code editor is a table summarizing the quiz results. The table has four columns: Input, Expected, Got, and a status column. The status column contains green checkmarks for all tests.

Input	Expected	Got	Status
3 1 3 5 4	1	1	✓
10 1 4 6 8 12 14 15 20 21 25 1	1	1	✓
10 1 2 3 5 11 14 16 24 28 29 0	0	0	✓
10 0 2 3 7 13 14 15 20 24 25 10	1	1	✓

Below the table, it states "Passed all tests! ✓".