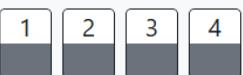


# GE23131-Programming Using C-2024

Quiz navigation



Show one page at a time

Finish review

**Status** Finished

**Started** Tuesday, 14 January 2025, 7:39 PM

**Completed** Tuesday, 14 January 2025, 8:10 PM

**Duration** 30 mins 49 secs

Question 1

Correct

Marked out of  
1.00

Flag question

Two strings **A** and **B** comprising of lower case English letters are compatible if they are equal or can be made equal by following this step any number of times:

- Select a prefix from the string **A** (possibly empty), and increase the alphabetical value of all the characters in the prefix by the same valid amount. For example, if the string is **xyz** and we select the prefix **xy** then we can convert it to **yx** by increasing the alphabetical value by 1. But if we select the prefix **xyz** then we cannot increase the alphabetical value.

Your task is to determine if given strings **A** and **B** are compatible.

First line: String **A**

Next line: String **B**

### Output format

For each test case, print **YES** if string **A** can be converted to string **B**, otherwise print **NO**.

### Constraints

$1 \leq \text{len}(A) \leq 1000000$

$1 \leq \text{len}(B) \leq 1000000$

### SAMPLE INPUT

abaca

cdbda

### SAMPLE OUTPUT

Coding: Attempt review | REC-CIS - Google Chrome

Not secure rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=161900&cmid=193

REC-CIS

YES

Explanation

The string **abaca** can be converted to **bcbda** in one move and to **cdbda** in the next move.

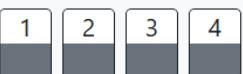
**Answer:** (penalty regime: 0 %)

```
1 #include <stdio.h>
2 #include <string.h>
3 int main()
4 {
5     char str1[1000000],str2[1000000];
6     int flag=1;
7     scanf("%s",str1);
8     scanf("%s",str2);
9     int a=strlen(str1);
10    int b=strlen(str2);
11    if(a==b)
12    {
13        for(int i=a-1;i>=0;i--)
14        {
15            while(str1[i]!=str2[i])
16            {
17                for(int j=0;j<=i;j++)
18                {
```



# GE23131-Programming Using C-2024

Quiz navigation



Show one page at a time

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**Status** Finished

**Started** Tuesday, 14 January 2025, 7:39 PM

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Question 1

Correct

Marked out of  
1.00

[Flag question](#)

Two strings **A** and **B** comprising of lower case English letters are compatible if they are equal or can be made equal by following this step any number of times:

- Select a prefix from the string **A** (possibly empty), and increase the alphabetical value of all the characters in the prefix by the same valid amount. For example, if the string is **xyz** and we select the prefix **xy** then we can convert it to **yx** by increasing the alphabetical value by 1. But if we select the prefix **xyz** then we cannot increase the alphabetical value.

Your task is to determine if given strings **A** and **B** are compatible.

First line: String **A**

Next line: String **B**

### Output format

For each test case, print **YES** if string **A** can be converted to string **B**, otherwise print **NO**.

### Constraints

$1 \leq \text{len}(A) \leq 1000000$

$1 \leq \text{len}(B) \leq 1000000$

### SAMPLE INPUT

abaca

cdbda

### SAMPLE OUTPUT

Coding: Attempt review | REC-CIS - Google Chrome

Not secure rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=161900&cmid=193

REC-CIS

YES

Explanation

The string **abaca** can be converted to **bcbda** in one move and to **cdbda** in the next move.

**Answer:** (penalty regime: 0 %)

```
1 #include <stdio.h>
2 #include <string.h>
3 int main()
4 {
5     char str1[1000000],str2[1000000];
6     int flag=1;
7     scanf("%s",str1);
8     scanf("%s",str2);
9     int a=strlen(str1);
10    int b=strlen(str2);
11    if(a==b)
12    {
13        for(int i=a-1;i>=0;i--)
14        {
15            while(str1[i]!=str2[i])
16            {
17                for(int j=0;j<=i;j++)
18                {
```



Coding: Attempt review | REC-CIS - Google Chrome

Not secure rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=161900&cmid=193

### REC-CIS

```
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
```

```
if(str1[j]<'z')
str1[j]++;
else
{
    flag=0;
    break;
}
if(flag==0)
break;

}

}

else
flag=0;
if(flag==0)
printf("NO");
else
printf("YES");
return 0;
```

	Input	Expected	Got	
✓	abaca	YES	YES	✓

WEEK 01

Finance headline India Wholesale...

Search

2012  
14-01-2025

	Input	Expected	Got	
✓	abaca	YES	YES	✓
	cdbda			

Passed all tests! ✓

### Question 2

Correct

Marked out of  
1.00

Flag question

Danny has a possible list of passwords of Manny's facebook account. All passwords length is odd. But Danny knows that Manny is a big fan of palindromes. So, his password and reverse of his password both should be in the list.

You have to print the length of Manny's password and it's middle character.

**Note: The solution will be unique.**

#### INPUT

The first line of input contains the integer N, the number of possible passwords.

Each of the following N lines contains a single word, its length being an odd number greater than 2 and lesser

You have to print the length of Manny's password and it's middle character.

**Note: The solution will be unique.**

### INPUT

The first line of input contains the integer  $N$ , the number of possible passwords.

Each of the following  $N$  lines contains a single word, its length being an odd number greater than 2 and lesser than **14**. All characters are lowercase letters of the English alphabet.

### OUTPUT

The first and only line of output must contain the length of the correct password and its central letter.

### CONSTRAINTS

**$1 \leq N \leq 100$**

### SAMPLE INPUT

REC-CIS

**Note: The solution will be unique.**

### INPUT

The first line of input contains the integer N, the number of possible passwords.

Each of the following N lines contains a single word, its length being an odd number greater than 2 and lesser than **14**. All characters are lowercase letters of the English alphabet.

### OUTPUT

The first and only line of output must contain the length of the correct password and its central letter.

### CONSTRAINTS

**$1 \leq N \leq 100$**

### SAMPLE INPUT

REC-CIS

abc

def

feg

cba

**SAMPLE OUTPUT**

3 b

**Answer:** (penalty regime: 0 %)

```
1 #include <stdio.h>
2 #include<string.h>
3 int main()
4 {
5     int n,flag=0;
6     char temp;
7     scanf ("%d",&n);
8     char words[n][14];
9     for (int i=0;i<n;i++)
10    scanf("%s",words[i]);
11    char reverse[14];
12    for (int i=0;i<n-1;i++)
```



Coding: Attempt review | REC-CIS - Google Chrome

⚠ Not secure rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=161900&cmid=193

# REC-CIS

```
12     for (int i=0;i<n-1;i++)
13     {
14         strcpy(reverse,words[i]);
15         int size=strlen(reverse);
16         for (int k=0;k<size/2;k++)
17         {
18             temp=reverse[k];
19             reverse[k]=reverse[size-k-1];
20             reverse[size-k-1]=temp;
21         }
22         for (int j=i+1;j<n;j++)
23         {
24             if(strcmp(reverse,words[j])==0)
25             {
26                 flag=1;
27                 break;
28             }
29         }
30     }
31     if(flag==1)
32     break;
33 }
34 int len=strlen(reverse);
35 printf("%d %c",len,reverse[len/2]);
36 return 0;
37 }
```

WEEK 01

Upcoming Earnings

Search

File

Cloud

Folder

Spotify

Google Chrome

Android Studio

ENG IN

20:13  
14-01-2025

Coding: Attempt review | REC-CIS - Google Chrome

⚠ Not secure rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=161900&cmid=193

REC-CIS

	Input	Expected	Got	
✓	4 abc def feg cba	3 b	3 b	✓

Passed all tests! ✓

Question 3

Correct

Marked out of  
1.00

Flag question

Joey loves to eat Pizza. But he is worried as the quality of pizza made by most of the restaurants is deteriorating. The last few pizzas ordered by him did not taste good :(. Joey is feeling extremely hungry and wants to eat pizza. But he is confused about the restaurant from where he should order. As always he asks Chandler for help.

Chandler suggests that Joey should give each restaurant some points, and then choose the restaurant having **maximum points**. If more than one restaurant has same points, Joey can choose the one with **lexicographically smallest** name.

Joey has assigned points to all the restaurants, but can't figure out which restaurant satisfies Chandler's criteria. Can you help him out?

1 Upcoming Earnings

Search

ENG IN

20:13

14-01-2025

REC-CIS

Can you help him out?

**Input:**

First line has N, the total number of restaurants.

Next N lines contain Name of Restaurant and Points awarded by Joey, separated by a space. Restaurant name has **no spaces**, all lowercase letters and will not be more than 20 characters.

**Output:**

Print the name of the restaurant that Joey should choose.

**Constraints:**

$1 \leq N \leq 10^5$

$1 \leq \text{Points} \leq 10^6$

**SAMPLE INPUT**

Coding: Attempt review | REC-CIS - Google Chrome

⚠ Not secure rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=161900&cmid=193

REC-CIS

		3	
		Pizzeria 108	
		Dominos 145	
		Pizzapizza 49	

**SAMPLE OUTPUT**

Dominos

**Explanation**

**Dominos** has maximum points.

**Answer:** (penalty regime: 0 %)

```
1 #include <stdio.h>
2 #include<string.h>
3 int main()
4 {
5     int n;
6     scanf("%d",&n);
7     char res [n+1];
```



Coding: Attempt review | REC-CIS - Google Chrome

⚠ Not secure rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=161900&cmid=193

# REC-CIS

```
7  char res [n] [21];
8  int rate [n];
9  for (int i=0;i<n;i++)
10 {
11     scanf("%s",res[i]);
12     scanf("%d",&rate[i]);
13 }
14 int max=rate[0];
15 char ans [20];
16 strcpy(ans,res[0]);
17 for (int i=1;i<n;i++)
18 {
19     if(rate[i]>max)
20     {
21         max=rate[i];
22         strcpy (ans,res[i]);
23     }
24     else if(rate[i]==max)
25     {
26         if (strcmp(res[i],ans)<0)
27             strcpy(ans,res[i]);
28     }
29 }
30 printf("%s",ans);
31 return 0;
32 }
```

WEEK 01

Upcoming Earnings

Search

File

Cloud

Folder

Spotify

Google Chrome

Android Studio

ENG IN

20:13  
14-01-2025

Coding: Attempt review | REC-CIS - Google Chrome

⚠ Not secure rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=161900&cmid=193

REC-CIS

	Input	Expected	Got	
✓	3 Pizzeria 108 Dominos 145 Pizzapizza 49	Dominoes	Dominoes	✓

Passed all tests! ✓

Question 4  
Correct  
Marked out of 1.00  
[Flag question](#)

These days Bechan Chacha is depressed because his crush gave him list of mobile number some of them are valid and some of them are invalid. Bechan Chacha has special power that he can pick his crush number only if he has valid set of mobile numbers. Help him to determine the valid numbers.

You are given a string "S" and you have to determine whether it is Valid mobile number or not. Mobile number is valid only if it is of length 10 , consists of numeric values and it shouldn't have prefix zeroes.

**Input:**

First line of input is T representing total number of test cases.

Coding: Attempt review | REC-CIS - Google Chrome

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# REC-CIS

Next T line each representing "S" as described in in problem statement.

**Output:**

Print "YES" if it is valid mobile number else print "NO".

Note: Quotes are for clarity.

**Constraints:**

$1 \leq T \leq 10^3$

sum of string length  $\leq 10^5$

**SAMPLE INPUT**

3

1234567890

0123456789

0123456.87



Coding: Attempt review | REC-CIS - Google Chrome

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REC-CIS

SAMPLE OUTPUT

YES

NO

NO

**Answer:** (penalty regime: 0 %)

```
1 #include<stdio.h>
2 #include<string.h>
3 int main()
4 {
5     int t;
6     scanf("%d",&t);
7     while(t--)
8     {
9         int flag=1;
10        char s[10000];
11        scanf("%s",s);
12        int k=strlen(s);
13        if(k==10)
14        {
15            for(int i=0;i<10;i++)
16            {
17                if(s[i]=='0')
18                {
19                    flag=0;
20                }
21            }
22        }
23        if(flag==1)
24        {
25            printf("YES");
26        }
27        else
28        {
29            printf("NO");
30        }
31    }
32 }
```



Coding: Attempt review | REC-CIS - Google Chrome

⚠ Not secure rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=161900&cmid=193

### REC-CIS

```
18 v
19
20
21
22
23 v
24
25
26
27
28
29
30
31
32
33
34
35
36
37 }
```

	Input	Expected	Got	
✓	3 1234567890 0123456789	YES NO NO	YES NO NO	✓

WEEK 01

26°C Partly cloudy

Search

20:14  
14-01-2025

Coding: Attempt review | REC-CIS - Google Chrome

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REC-CIS

```
29      else
30          flag=0;
31          if(flag==1)
32              printf("YES\n");
33          else
34              printf("NO\n");
35      }
36  }
37 }
```

	Input	Expected	Got	
✓	3 1234567890 0123456789 0123456.87	YES NO NO NO	YES NO NO NO	✓

Passed all tests! ✓

Finish review

Coding: Attempt review | REC-CIS - Google Chrome

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REC-CIS

# GE23131-Programming Using C-2024

Quiz navigation

1 2

Show one page at a time

Finish review

Status Finished

Started Monday, 13 January 2025, 6:36 PM

Completed Monday, 13 January 2025, 6:41 PM

Duration 5 mins 34 secs

Question 1

Correct

Marked out of 1.00

Flag question

A binary number is a combination of 1s and 0s. Its  $n^{\text{th}}$  least significant digit is the  $n^{\text{th}}$  digit starting from the right starting with 1. Given a decimal number, convert it to binary and determine the value of the the  $4^{\text{th}}$  least significant digit.

**Example**

number = 23

- Convert the decimal number 23 to binary number:  $23^{10} = 2^4 + 2^2 + 2^1 + 2^0 = (10111)_2$ .
- The value of the  $4^{\text{th}}$  index from the right in the binary representation is 0.

26°C Partly cloudy

Search

Cloudy with rain icon

File icon

Folder icon

Spotify icon

Google Chrome icon

Microsoft Store icon

Speaker icon

ENG IN

Wi-Fi icon

Date: 14-01-2025

Time: 20:14

Coding: Attempt review | REC-CIS - Google Chrome

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REC-CIS

**Function Description**

Complete the function fourthBit in the editor below.

fourthBit has the following parameter(s):

int number: a decimal integer

Returns:

int: an integer 0 or 1 matching the 4th least significant digit in the binary representation of number.

**Constraints**

$0 \leq \text{number} < 2^{31}$

**Input Format for Custom Testing**

Input from stdin will be processed as follows and passed to the function.



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⚠ Not secure rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=157619&cmid=194

REC-CIS

The only line contains an integer, number.

**Sample Case 0**

**Sample Input 0**

STDIN Function

-----

32 → number = 32

**Sample Output 0**

0

**Explanation 0**

- Convert the decimal number 32 to binary number:  $32_{10} = (100000)_2$ .
- The value of the 4th index from the right in the binary representation is 0.



Coding: Attempt review | REC-CIS - Google Chrome

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REC-CIS

**Sample Case 1**

**Sample Input 1**

STDIN Function

-----

77 → number = 77

**Sample Output 1**

1

**Explanation 1**

- Convert the decimal number 77 to binary number:  $77_{10} = (1001101)_2$ .
- The value of the 4th index from the right in the binary representation is 1.

**Answer:** (penalty regime: 0 %)

26°C  
Partly cloudy

Search

Cloudy with rain icon

File icon

Folder icon

Spotify icon

Google Chrome icon

Android icon

Up arrow icon

Information icon

ENG IN

Wi-Fi icon

Speaker icon

Screen rotation icon

20:15  
14-01-2025

Coding: Attempt review | REC-CIS - Google Chrome

⚠ Not secure rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=157619&cmid=194

REC-CIS

Reset answer

```
1  /*
2  * Complete the 'fourthBit' function below.
3  *
4  * The function is expected to return an INTEGER.
5  * The function accepts INTEGER number as parameter.
6  */
7
8 int fourthBit(int number)
9 {
10 int binary[32];
11 int i=0;
12 while(number>0)
13 {
14 binary[i]=number%2;
15 number/=2;
16 i++;
17 }
18 if(i>=4)
19 {
20 return binary[3];
21 }
22 else
23 return 0;
24 }
```

26°C  
Partly cloudy

Search

20:15  
14-01-2025

Coding: Attempt review | REC-CIS - Google Chrome

⚠ Not secure rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=157619&cmid=194

REC-CIS

	Test	Expected	Got	
✓	printf("%d", fourthBit(32))	0	0	✓
✓	printf("%d", fourthBit(77))	1	1	✓

Passed all tests! ✓

**Question 2**

Correct

Marked out of  
1.00

Flag question

Determine the factors of a number (i.e., all positive integer values that evenly divide into a number) and then return the  $p^{\text{th}}$  element of the list, sorted ascending. If there is no  $p^{\text{th}}$  element, return 0.

**Example**

$n = 20$

$p = 3$

The factors of 20 in ascending order are {1, 2, 4, 5, 10, 20}. Using 1-based indexing, if  $p = 3$ , then 4 is returned.  
If  $p > 6$ , 0 would be returned.

14/01/2025

 26°C  
Partly cloudy



 Search























ENG  
IN







20:15  
14-01-2025

Coding: Attempt review | REC-CIS - Google Chrome

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REC-CIS

### Function Description

Complete the function pthFactor in the editor below.

pthFactor has the following parameter(s):

int n: the integer whose factors are to be found  
int p: the index of the factor to be returned

Returns:

int: the long integer value of the  $p^{\text{th}}$  integer factor of n or, if there is no factor at that index, then 0 is returned

### Constraints

$1 \leq n \leq 10^{15}$   
 $1 \leq p \leq 10^9$

Input Format for Custom Testing

26°C Partly cloudy

Search

Cloud, 1 notification

Windows Start

File Explorer

OneDrive

Task View

Spotify

Google Chrome

Android Studio

Up arrow

Information icon

ENG IN

Wi-Fi, Battery, Volume

20:15  
14-01-2025

Coding: Attempt review | REC-CIS - Google Chrome

⚠ Not secure rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=157619&cmid=194

REC-CIS

Input from stdin will be processed as follows and passed to the function.

The first line contains an integer n, the number to factor.

The second line contains an integer p, the 1-based index of the factor to return.

**Sample Case 0**

**Sample Input 0**

STDIN	Function
-----	-----
10	→ n = 10
3	→ p = 3

**Sample Output 0**

5

1 26°C Partly cloudy

Search

Cloudy with rain icon

File icon

Folder icon

Spotify icon

Google Chrome icon

Android icon

Up arrow icon

Information icon

ENG IN

Wi-Fi icon

Speaker icon

Battery icon

20:15  
14-01-2025

Coding: Attempt review | REC-CIS - Google Chrome

⚠ Not secure rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=157619&cmid=194

REC-CIS

**Explanation 0**

Factoring n = 10 results in {1, 2, 5, 10}. Return the p = 3<sup>rd</sup> factor, 5, as the answer.

**Sample Case 1**

**Sample Input 1**

STDIN	Function	
-----	-----	
10	→ n = 10	
5	→ p = 5	

**Sample Output 1**

0

**Explanation 1**

1 26°C Partly cloudy

Search

Cloudy with rain icon

File icon

Folder icon

Cloud icon

Spotify icon

Google Chrome icon

Android icon

Up arrow icon

Information icon

ENG IN

Wi-Fi icon

Speaker icon

Battery icon

20:15

14-01-2025

Coding: Attempt review | REC-CIS - Google Chrome

⚠ Not secure rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=157619&cmid=194

REC-CIS

Factoring n = 10 results in {1, 2, 5, 10}. There are only 4 factors and p = 5, therefore 0 is returned as the answer.

**Sample Case 2**

**Sample Input 2**

STDIN	Function
-----	-----
1	→ n = 1
1	→ p = 1

**Sample Output 2**

1

**Explanation 2**

Factoring n = 1 results in {1}. The p = 1st factor of 1 is returned as the answer.



Coding: Attempt review | REC-CIS - Google Chrome

⚠ Not secure rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=157619&cmid=194

REC-CIS

**Answer:** (penalty regime: 0 %)

Reset answer

```
1  /*
2  * Complete the 'pthFactor' function below.
3  *
4  * The function is expected to return a LONG_INTEGER.
5  * The function accepts following parameters:
6  * 1. LONG_INTEGER n
7  * 2. LONG_INTEGER p
8  */
9
10 long pthFactor(long n, long p)
11 {
12     int count=0;
13     for (long i=1;i<=n;++i)
14     {
15         if(n%i==0)
16         {
17             count++;
18             if(count==p)
19             {
20                 return i;
21             }
22         }
23     }
24     return 0;
25 }
```

26°C 20:16  
Partly cloudy 14-01-2025

Search

Clouds icon

File icon

Folder icon

Group icon

Windows icon

Spotify icon

Google icon

Play Store icon

Up arrow icon

Cloud icon

ENG IN

Wi-Fi icon

Speaker icon

Battery icon

Coding: Attempt review | REC-CIS - Google Chrome

⚠ Not secure rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=157619&cmid=194

### REC-CIS

```
17
18     count++,
19     if(count==p)
20     {
21         return i;
22     }
23 }
24 return 0;
25 }
```

	Test	Expected	Got	
✓	printf("%ld", pthFactor(10, 3))	5	5	✓
✓	printf("%ld", pthFactor(10, 5))	0	0	✓
✓	printf("%ld", pthFactor(1, 1))	1	1	✓

Passed all tests! ✓

Finish review