RAJALAKSHMI ENGINEERING COLLEGE

RAJALAKSHMI NAGAR, THANDALAM – 602 105

Laboratory Record Note Book

Name : . . . . . .

Year / Branch / Section : . . . . . .

University Register No. : . . . . . .

College Roll No. : . . . . . .

Semester : . . . . . .

Academic Year : . . . . . .

RAJALAKSHMI ENGINEERING COLLEGE

RAJALAKSHMI NAGAR, THANDALAM – 602 105

BONAFIDE CERTIFICATE

Name : . . . . . .

Academic Year : . . . . . Semester : . . . . . Branch : . . . . . .

Register No.

Certified that this is the bonafide record of work done by the above student in the

. . . . . Laboratory during the year

20 - 20

Signature of Faculty in-charge

Submitted for the Practical Examination held on . . . . . .

Internal Examiner **External Examiner**

INDEX

Name : ______________________ Branch : __________ Sec : ________ Roll No : ______________

S.No.	Date	Title	Page No.	Teacher's Sign/Remarks

Started on	Wednesday, 28 February 2024, 10:22 AM
State	Finished
Completed on	Wednesday, 28 February 2024, 11:22 AM
Time taken	1 hour
Marks	5.00/5.00
Grade	**50.00** out of 50.00 (**100**%)
Name	SHARVESH S 2022-CSD-A

Question **1**

Correct

Mark 1.00 out of 1.00

Justin is a carpenter who works on an hourly basis. He works in a company where he is paid Rs 50 for an hour on weekdays and Rs 80 for an hour on weekends. He works 10 hrs more on weekdays than weekends. If the salary paid for him is given, write a program to find the number of hours he has worked on weekdays and weekends.

Hint:

If the final result(hrs) are in -ve convert that to +ve using abs() function

The `abs()` function returns the absolute value of the given number.

```
number = -20
absolute_number = abs(number)
print(absolute_number)
# Output: 20
```

Sample Input:

450

Sample Output:

weekdays 10.38

weekend 0.38

For example:

Input	Result
450	weekdays 10.38 weekend 0.38

Answer: (penalty regime: 0 %)

```
1
2 a=int(input())
3 b=abs((a-500)/130)
4 print("weekdays {0:.2f}\nweekend {1:.2f}".format((10+b),(b)))
```

	Input	Expected	Got	
✔	450	weekdays 10.38 weekend 0.38	weekdays 10.38 weekend 0.38	✔
✔	500	weekdays 10.00 weekend 0.00	weekdays 10.00 weekend 0.00	✔
✔	10000	weekdays 83.08 weekend 73.08	weekdays 83.08 weekend 73.08	✔
✔	6789	weekdays 58.38 weekend 48.38	weekdays 58.38 weekend 48.38	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 1.00 out of 1.00

Alfred buys an old scooter for Rs. X and spends Rs. Y on its repairs. If he sells the scooter for Rs. Z (Z>X+Y). Write a program to help Alfred to find his gain percent. Get all the above-mentioned values through the keyboard and find the gain percent.

Input Format:

The first line contains the Rs X

The second line contains Rs Y

The third line contains Rs Z

Sample Input:

10000

250

15000

Sample Output:

46.34 is the gain percent.

For example:

Input	Result
10000 250 15000	46.34 is the gain percent.

Answer: (penalty regime: 0 %)

```
x=int(input())
y=int(input())
z=int(input())
print("{0:.2f} is the gain percent.".format((100*(z-(x+y)))/(x+y)))
```

	Input	Expected	Got	
✔	10000 250 15000	46.34 is the gain percent.	46.34 is the gain percent.	✔

	Input	Expected	Got	
✔	45500 500 60000	30.43 is the gain percent.	30.43 is the gain percent.	✔
✔	5000 0 7000	40.00 is the gain percent.	40.00 is the gain percent.	✔
✔	12500 5000 18000	2.86 is the gain percent.	2.86 is the gain percent.	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **3**

Correct

Mark 1.00 out of 1.00

Write a program to convert strings to an integer and float and display its type.

Sample Input:

10

10.9

Sample Output:

10,<class 'int'>

10.9,<class 'float'>

Answer: (penalty regime: 0 %)

```
import math
a=int(input())
b=(float(input()))
print(str(a)+","+str(type(a)))
print("{0:.1f},{1}".format(b,str(type(b))))

```

	Input	Expected	Got	
✔	10 10.9	10,<class 'int'> 10.9,<class 'float'>	10,<class 'int'> 10.9,<class 'float'>	✔
✔	12 12.5	12,<class 'int'> 12.5,<class 'float'>	12,<class 'int'> 12.5,<class 'float'>	✔
✔	89 7.56	89,<class 'int'> 7.6,<class 'float'>	89,<class 'int'> 7.6,<class 'float'>	✔
✔	55000 56.2	55000,<class 'int'> 56.2,<class 'float'>	55000,<class 'int'> 56.2,<class 'float'>	✔
✔	2541 2541.679	2541,<class 'int'> 2541.7,<class 'float'>	2541,<class 'int'> 2541.7,<class 'float'>	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **4**

Correct

Mark 1.00 out of 1.00

In many jurisdictions, a small deposit is added to drink containers to encourage people to recycle them. In one particular jurisdiction, drink containers holding one liter or less have a $0.10 deposit and drink containers holding more than one liter have a $0.25 deposit. Write a program that reads the number of containers of each size(less and more) from the user. Your program should continue by computing and displaying the refund that will be received for returning those containers. Format the output so that it includes a dollar sign and always displays exactly two decimal places.

Sample Input

10

20

Sample Output

Your total refund will be $6.00.

For example:

Input	Result
20 20	Your total refund will be $7.00.

Answer: (penalty regime: 0 %)

```
a=float(input())
b=float(input())
sum=float(a*0.10)+float(b*0.25)
print("Your total refund will be ${0:.2f}.".format(sum))
```

	Input	Expected	Got	
✔	20 20	Your total refund will be $7.00.	Your total refund will be $7.00.	✔
✔	11 22	Your total refund will be $6.60.	Your total refund will be $6.60.	✔
✔	123 200	Your total refund will be $62.30.	Your total refund will be $62.30.	✔

	Input	Expected	Got	
✔	76 38	Your total refund will be $17.10.	Your total refund will be $17.10.	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **5**

Correct

Mark 1.00 out of 1.00

Write a simple python program to find the square root of a given floating point number. The output should be displayed with 3 decimal places.

Sample Input:

8.00

Sample Output:

2.828

For example:

Input	Result
8.00	2.828

Answer: (penalty regime: 0 %)

```
import math
a=float(input())
print("{0:.3f}".format(math.sqrt(a)))
```

	Input	Expected	Got	
✔	8.00	2.828	2.828	✔
✔	14.00	3.742	3.742	✔
✔	4.00	2.000	2.000	✔
✔	487	22.068	22.068	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

◄ Week-1_MCQ

Jump to...

Week1 extra ►

Started on	Wednesday, 28 February 2024, 11:33 AM
State	Finished
Completed on	Wednesday, 28 February 2024, 12:20 PM
Time taken	47 mins 44 secs
Marks	5.00/5.00
Grade	**50.00** out of 50.00 (**100**%)
Name	SHARVESH S 2022-CSD-A

Question **1**

Correct

Mark 1.00 out of 1.00

Mr.Ram has been given a problem kindly help him to solve it. The input of the program is either 0 or 1. IF 0 is the input he should display "C" if 1 is the input it should display "D".There is a constraint that Mr. Ram should use either logical operators or arithmetic operators to solve the problem, not anything else.

Hint:

Use ASCII values of C and D.

Input Format:

An integer x, 0<=x<=1. .

Output Format:

output a single character "C" or "D"depending on the value of x.

```
Input 1:
0
Output 1:
C
```

```
Input 2:
1

Output 1:
D
```

Answer: (penalty regime: 0 %)

```
1 a=int(input())
2 print(chr(67+a))
3
```

	Input	Expected	Got	
✔	0	C	C	✔

	Input	Expected	Got	
✔	1	D	D	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 1.00 out of 1.00

A team from the Rotract club had planned to conduct a rally to create awareness among the Coimbatore people to donate blood. They conducted the rally successfully. Many of the Coimbatore people realized it and came forward to donate their blood to nearby blood banks. The eligibility criteria for donating blood are people should be above or equal to 18 and his/ her weight should be above 40. There was a huge crowd and staff in the blood bank found it difficult to manage the crowd. So they decided to keep a system and ask the people to enter their age and weight in the system. If a person is eligible he/she will be allowed inside.

Write a program and feed it to the system to find whether a person is eligible or not.

Input Format:

Input consists of two integers that correspond to the age and weight of a person respectively.

Output Format:

Display True(IF ELIGIBLE)

Display False (if not eligible)

Sample Input

19

45

Sample Output

True

Answer: (penalty regime: 0 %)

```
a=int(input())
b=int(input())
if a>=18 and b>40:
    print("True")
else:
    print("False")
```

	Input	Expected	Got	
✔	19 45	True	True	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **3**

Correct

Mark 1.00 out of 1.00

An online retailer sells two products: widgets and gizmos. Each widget weighs 75 grams. Each gizmo weighs 112 grams. Write a program that reads the number of widgets and the number of gizmos from the user. Then your program should compute and display the total weight of the parts.

Sample Input

10

20

Sample Output

The total weight of all these widgets and gizmos is 2990 grams.

For example:

Input	Result
10 20	The total weight of all these widgets and gizmos is 2990 grams.

Answer: (penalty regime: 0 %)

```
a=int(input())
b=int(input())
print("The total weight of all these widgets and gizmos is {} grams.".
```

	Input	Expected	Got	
✔	10 20	The total weight of all these widgets and gizmos is 2990 grams.	The total weight of all these widgets and gizmos is 2990 grams.	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **4**

Correct

Mark 1.00 out of 1.00

Mr. X's birthday is in next month. This time he is planning to invite N of his friends. He wants to distribute some chocolates to all of his friends after the party. He went to a shop to buy a packet of chocolates. At the chocolate shop, 4 packets are there with different numbers of chocolates. He wants to buy such a packet which contains a number of chocolates, which can be distributed equally among all of his friends. Help Mr. X to buy such a packet.

Input Given:

N-No of friends

P1,P2,P3 AND P4-No of chocolates

OUTPUT:

"True" if he can buy that packet and "False" if he can't buy that packet.

SAMPLE INPUT AND OUTPUT:

5

25

12

10

9

OUTPUT

True False True False

Answer: (penalty regime: 0 %)

```
a=int(input())
b=int(input())
c=int(input())
d=int(input())
e=int(input())
print("{} {} {} {}".format((b%a==0),(c%a==0),(d%a==0),(e%a==0)))
```

	Input	Expected	Got	
✔	5 25 23 20 10	True False True True	True False True True	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **5**

Correct

Mark 1.00 out of 1.00

In London, every year during Dasara there will be a very grand doll show. People try to invent new dolls of different varieties. The best-sold doll's creator will be awarded with a cash prize. So people broke their heads to create dolls innovatively. Knowing this competition, Mr.Lokpaul tried to create a doll that sings only when an even number is pressed and the number should not be zero and greater than 100.

IF Lokpaul wins print true, otherwise false.

Sample Input

10

Sample Output

True

Explanation:

Since 10 is an even number and a number between 0 and 100, True is printed

Answer: (penalty regime: 0 %)

```
a=int(input())
if a%2==0 and a>=0 and a<=100:
    print("True")
else:
    print("False")
```

	Input	Expected	Got	
✔	56	True	True	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

◄ Week-2_MCQ

Jump to...

WEEK-02 Extra ►

Started on	Tuesday, 5 March 2024, 8:22 AM
State	Finished
Completed on	Tuesday, 5 March 2024, 9:06 AM
Time taken	43 mins 57 secs
Marks	5.00/5.00
Grade	**50.00** out of 50.00 (**100**%)
Name	SHARVESH S 2022-CSD-A

Question **1**

Correct

Mark 1.00 out of 1.00

The length of a month varies from 28 to 31 days. In this exercise you will create a program that reads the name of a month from the user as a string. Then your program should display the number of days in that month. Display “28 or 29 days” for February so that leap years are addressed.

Sample Input 1

February

Sample Output 1

February has 28 or 29 days in it.

Sample Input 2

March

Sample Output 2

March has 31 days in it.

Sample Input 3

April

Sample Output 3

April has 30 days in it.

For example:

Input	Result
February	February has 28 or 29 days in it.

Answer: (penalty regime: 0 %)

```
a=input()
b=["January","February","March","April","May","June","July","August",
c=["31","28 or 29","31","30","31","30","31","31","30","31","30","31"]
d=0
for i in b:
    d=d+1
    if i==a:
        print(i+" has "+c[d-1]+" days in it.")
        break
```

	Input	Expected	Got	
✔	February	February has 28 or 29 days in it.	February has 28 or 29 days in it.	✔

	Input	Expected	Got	
✔	March	March has 31 days in it.	March has 31 days in it.	✔
✔	April	April has 30 days in it.	April has 30 days in it.	✔
✔	May	May has 31 days in it.	May has 31 days in it.	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 1.00 out of 1.00

Most years have 365 days. However, the time required for the Earth to orbit the Sun is actually slightly more than that. As a result, an extra day, February 29, is included in some years to correct for this difference. Such years are referred to as leap years. The rules for determining whether or not a year is a leap year follow:

• Any year that is divisible by 400 is a leap year.

• Of the remaining years, any year that is divisible by 100 is not a leap year.

• Of the remaining years, any year that is divisible by 4 is a leap year.

• All other years are not leap years.

Write a program that reads a year from the user and displays a message indicating whether or not it is a leap year.

Sample Input 1

1900

Sample Output 1

1900 is not a leap year.

Sample Input 2

2000

Sample Output 2

2000 is a leap year.

Answer: (penalty regime: 0 %)

```
years=int(input())

if years%400==0:
    print(str(years)+" is a leap year.")
elif years%100!=0 and years%4==0:
    print(str(years)+" is not a leap year.")
else:
    print(str(years)+" is not a leap year.")

```

	Input	Expected	Got	
✔	1900	1900 is not a leap year.	1900 is not a leap year.	✔
✔	2000	2000 is a leap year.	2000 is a leap year.	✔
✔	2100	2100 is not a leap year.	2100 is not a leap year.	✔
✔	2400	2400 is a leap year.	2400 is a leap year.	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **3**

Correct

Mark 1.00 out of 1.00

In this exercise you will create a program that reads a letter of the alphabet from the user. If the user enters a, e, i, o or u then your program should display a message indicating that the entered letter is a vowel. If the user enters y then your program should display a message indicating that sometimes y is a vowel, and sometimes y is a consonant. Otherwise your program should display a message indicating that the letter is a consonant.

Sample Input 1

i

Sample Output 1

It's a vowel.

Sample Input 2

y

Sample Output 2

Sometimes it's a vowel... Sometimes it's a consonant.

Sample Input3

c

Sample Output 3

It's a consonant.

For example:

Input	Result
y	Sometimes it's a vowel... Sometimes it's a consonant.
c	It's a consonant.

Answer: (penalty regime: 0 %)

```
b=input()
if b=="a" or b=="e" or b=="i" or b=="o" or b=="u":
    print("It's a vowel.")
elif b=="y":
    print("Sometimes it's a vowel... Sometimes it's a consonant.")
else:
    print("It's a consonant.")
```

	Input	Expected	Got	
✔	i	It's a vowel.	It's a vowel.	✔
✔	y	Sometimes it's a vowel... Sometimes it's a consonant.	Sometimes it's a vowel... Sometimes it's a consonant.	✔
✔	c	It's a consonant.	It's a consonant.	✔
✔	e	It's a vowel.	It's a vowel.	✔
✔	r	It's a consonant.	It's a consonant.	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **4**

Correct

Mark 1.00 out of 1.00

Write a program to calculate and print the Electricity bill where the unit consumed by the user is given from test case. It prints the total amount the customer has to pay. The charge are as follows:

Unit	Charge / Unit
Upto 199	@1.20
200 and above but less than 400	@1.50
400 and above but less than 600	@1.80
600 and above	@2.00

If bill exceeds Rs.400 then a surcharge of 15% will be charged and the minimum bill should be of Rs.100/-

Sample Test Cases

Test Case 1

Input

50

Output

100.00

Test Case 2

Input

300

Output

517.50

For example:

Input	Result
100.00	120.00

Answer: (penalty regime: 0 %)

```
units=float(input())
sum=0
if int(units)<199:
    sum+=units*1.20
elif units>=200 and units<400:
    sum+=units*1.50

elif units>=400 and units<600:
    sum+=units*1.80

elif units>=600:
    sum+=units*2.00

if sum>400:
    sum=sum+(sum*0.15)
    print("{0:.2f}".format(float(sum)))

elif sum<100:
    print("100.00")
else:
    print("{0:.2f}".format(float(sum)))

```

	Input	Expected	Got	
✔	50	100.00	100.00	✔
✔	100.00	120.00	120.00	✔
✔	500	1035.00	1035.00	✔
✔	700	1610.00	1610.00	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **5**

Correct

Mark 1.00 out of 1.00

Write a program that reads an integer from the user. Then your program should display a message indicating whether the integer is even or odd.

Sample Input1:

5

Sample Output1:

5 is odd.

Sample Input2:

10

Sample Output2:

10 is even.

For example:

Input	Result
5	5 is odd.

Answer: (penalty regime: 0 %)

```
a=int(input())
if a%2==0:
    print(str(a)+" is even.")
else:
    print(str(a)+" is odd.")
```

	Input	Expected	Got	
✔	5	5 is odd.	5 is odd.	✔
✔	10	10 is even.	10 is even.	✔
✔	20	20 is even.	20 is even.	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

◄ Week-03_MCQ

Jump to...

WEEK-03-Extra ►

Started on	Monday, 25 March 2024, 9:00 AM
State	Finished
Completed on	Monday, 25 March 2024, 9:28 AM
Time taken	28 mins 41 secs
Marks	5.00/5.00
Grade	**50.00** out of 50.00 (**100**%)
Name	SHARVESH S 2022-CSD-A

Question **1**

Correct

Mark 1.00 out of 1.00

You are choreographing a circus show with various animals. For one act, you are given two kangaroos on a number line ready to jump in the positive direction.
•The first kangaroo starts at position x1 and moves at a speed v1 meters per jump.
•The second kangaroo starts at position x2 and moves at a speed of v2 meters per jump and x2 > x1
•You have to figure out to get both kangaroos at the same position at the same time as part of the show before k jumps. If it is possible, return YES, otherwise return NO.

Input Format:
x1-position of kangaroo1
v1-Speed of kangaroo1
x2-position of kangaroo2
v2-Speed of kangaroo2
k-jumps

Output Format:
Both kangaroos are at the same position within k jumps, YES, otherwise NO.

For example:

Input	Result
0 3 4 2 6	YES

Answer: (penalty regime: 0 %)

```
x1=int(input())
v1=int(input())
x2=int(input())
v2=int(input())
k=int(input())
while k!=0:
    if x1+v1 == x2+v2:
        print("YES")
        break;
    elif k==1:
        print("NO")
    x1+=v1
    x2+=v2
    k=k-1

```

	Input	Expected	Got	
✔	0 3 4 2 6	YES	YES	✔
✔	0 3 2 4 8	NO	NO	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 1.00 out of 1.00

Write a program to check whether a given number is a perfect number or not.

Perfect number is a positive number which sum of all positive divisors excluding that number is equal to that number.

For example, 6 is perfect number since divisor of 6 are 1, 2 and 3.

Sum of its divisor is 1 + 2+ 3 = 6

Sample Test Cases

Test Case 1

Input

6

Output

YES

Test Case 2

45

Output

NO

For example:

Input	Result
6	YES

Answer: (penalty regime: 0 %)

```
a=int(input())
sum=0
for j in range(1,a):
    if a%j==0:
        sum+=j
if sum==a:
    print("YES")
else:
    print("NO")

```

	Input	Expected	Got	
✔	6	YES	YES	✔
✔	45	NO	NO	✔
✔	496	YES	YES	✔
✔	123	NO	NO	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **3**

Correct

Mark 1.00 out of 1.00

Write a program to find the count of ALL digits in a given number N. The number will be passed to the program as an input of type int.

Assumption: The input number will be a positive integer number>= 1 and<= 25000.

For e.g.

If the given number is 292, the function should return 3 because there are 3 digits in this number

If the given number is 1015, the function should return 4 because there are 4 digits in this number

For example:

InputResult

292 3

1015 4

For example:

Input	Result
293	3

Answer: (penalty regime: 0 %)

```
a=int(input())
counter=0
while a!=0:
    a=int(a/10)
    counter=counter+1
print(counter)
```

	Input	Expected	Got	
✔	293	3	3	✔
✔	6788	4	4	✔
✔	52321	5	5	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **4**

Correct

Mark 1.00 out of 1.00

Write a program to find the sum of the series 1 +11 + 111 + 1111 + . . . + n terms (n will be given as input from the user and sum will be the output)

Sample Test Cases

Test Case 1

Input

4

Output

1234

Explanation:

```
as input is 4, have to take 4 terms.
```

```
1 + 11 + 111 + 1111
```

Test Case 2

Input

6

Output

123456

For example:

Input	Result
3	123

Answer: (penalty regime: 0 %)

```
def series(n):
    for i in range(1,n+1):
        print(i,end="")
a=int(input())
series(a)
```

	Input	Expected	Got	
✔	1	1	1	✔
✔	3	123	123	✔
✔	4	1234	1234	✔
✔	7	1234567	1234567	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **5**

Correct

Mark 1.00 out of 1.00

Write a program that reads a positive integer, n, from the user and then displays the sum of all of the integers from 1 to n.

Sample Input

10

Sample Output

The sum of the first 10 positive integers is 55.0

For example:

Input	Result
10	The sum of the first 10 positive integers is 55.0

Answer: (penalty regime: 0 %)

```
a=float(input())
sum=0
for i in range(1,int(a+1)):
    sum+=i
print("The sum of the first "+str(int(a))+" positive integers is "+"{:
```

	Input	Expected	Got	
✔	10	The sum of the first 10 positive integers is 55.0	The sum of the first 10 positive integers is 55.0	✔
✔	20	The sum of the first 20 positive integers is 210.0	The sum of the first 20 positive integers is 210.0	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

◄ Week-04_MCQ

Jump to...

WEEK-04-Extra ►

Started on	Wednesday, 27 March 2024, 12:01 PM
State	Finished
Completed on	Friday, 29 March 2024, 7:38 PM
Time taken	2 days 7 hours
Marks	5.00/5.00
Grade	**50.00** out of 50.00 (**100**%)
Name	SHARVESH S 2022-CSD-A

Question **1**

Correct

Mark 1.00 out of 1.00

You are given an array of N integers, A1, A2, . . . , AN and an integer K. Return the of count of distinct numbers in all windows of size K.

Input :

1 2 1 3 4 3

3

Output :

2

3

3

2

Explanation

All windows of size K are

[1, 2, 1]

[2, 1, 3]

[1, 3, 4]

[3, 4, 3]

Answer: (penalty regime: 0 %)

```
ist=[]

list=input().split()
n=int(input())
c=0
temp=[]
for i in range(0,len(list)-(n-1)):
    for j in range(i,i+3):
        temp.append(list[j])

    for l in temp:

        if temp.count(l)>1:
            c=c+1
            temp.remove(l)
        elif temp.count(l)==1:
            c=c+1
    print(c)
    temp.clear()
    c=0
```

	Input	Expected	Got	
✔	1 2 1 3 4 3 3	2 3 3 2	2 3 3 2	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 1.00 out of 1.00

Write a Python program that takes two lists and returns True if they have at least one common member.

First line of input contains List 1

Second line of input contains List 2

Output is True if there is atleast one common element, false if no common elements

For example:

Input	Result
10 20 30 40 50 12 25 85 40 21	True

Answer: (penalty regime: 0 %)

```
a=[]
a=input().split()
m=[]
m=input().split()
c=0
for i in a:
    for j in m:
        if i==j:
            print("True")

            c=c+1
            break
    if c==1:
        break
if c==0:
    print("False")

```

	Input	Expected	Got	
✔	10 20 30 40 50 12 25 85 40 21	True	True	✔
✔	1 2 3 4 5 7 8 9 10 11	False	False	✔
✔	10 20 30 20 20 30	True	True	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **3**

Correct

Mark 1.00 out of 1.00

You have to generate the sum of specific numbers based on its position in the array set provided to you.

This is explained below:

Example 1:

Let us assume the encoded set of numbers given to you is:

input1: 5

input2: {1, 51, 436, 7860, 41236}

Step 1:

Starting from the 0

index of the array pick up digits as per below:

0 index – pick up the units value of the number (in this case is 1).

1 index - pick up the tens value of the number (in this case it is 5).

2 index - pick up the hundreds value of the number (in this case it is 4).

3 index - pick up the thousands value of the number (in this case it is 7).

4 index - pick up the ten thousands value of the number (in this case it is 4).

(Continue this for all the elements of the input array).

The array generated from Step 1 will then be – {1, 5, 4, 7, 4}.

Step 2:

Square each number present in the array generated in Step 1.

{1, 25, 16, 49, 16}

Step 3:

Calculate the sum of all elements of the array generated in Step 2 to get the final result. The result will be = 107.

Note:

Note:

1) While picking up a number in Step1, if you observe that the number is smaller than the required position then use 0.

2) input1 represents the number of elements in input2 and

input2[] is the array of numbers.

For example:

Input	Result
5 1 51 436 7860 41236	107

Answer: (penalty regime: 0 %)

```
1 import math
```

```
n=int(input())
ist=[]
while n!=0:
    a=int(input())
    ist.append(a)
    n=n-1
sum=0
pist=[]
c=1
for i in ist:
    r=str(i)
    if len(r)==c:
     sum+=pow(int(r[0]),2)
    c=c+1

print(sum)

```

	Input	Expected	Got	
✔	5 1 51 436 7860 41236	107	107	✔
✔	4 1 1 111 1111	3	3	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **4**

Correct

Mark 1.00 out of 1.00

Write a program that reads integers from the user and stores them in a list. Use 0 as a sentinel value to mark the end of the input. Once all of the values have been read your program should display them (except for the 0) in reverse order, with one value appearing on each line.

Sample Input

```
33
11
22
55
44
0
```

```
Sample Output
```

```
55
44
33
22
11
```

For example:

Input	Result
33 11 22 55 44 0	55 44 33 22 11

Answer: (penalty regime: 0 %)

```
ist=[]
a=int(input())
ist.append(a)
while a!=0:
    a=int(input())
    if a!=0:
     ist.append(a)
ist.sort(reverse=True)
for i in ist:
    print(i,end="\n")
```

	Input	Expected	Got	
✔	33 11 22 55 44 0	55 44 33 22 11	55 44 33 22 11	✔
✔	50 40 20 10 30 0	50 40 30 20 10	50 40 30 20 10	✔
✔	1 2 3 4 5 6 7 8 9 0	9 8 7 6 5 4 3 2 1	9 8 7 6 5 4 3 2 1	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **5**

Correct

Mark 1.00 out of 1.00

Write a program that reads integers from the user and stores them in a list. Your program should continue reading values until the user enters 0. Then it should display all of the values entered by the user (except for the 0) in ascending order, with one value appearing on each line. Use either the sort method or the sorted function to sort the list.

Sample Input

```
20
30
40
50
10
0
```

```
Sample Output
```

```
10
20
30
40
50
```

For example:

Input	Result
20 30 40 50 10 0	10 20 30 40 50

Answer: (penalty regime: 0 %)

```
ist=[]

a=int(input())
ist.append(a)
while a!=0:
    a=int(input())
    if a!=0:
     ist.append(a)
ist.sort()
for i in ist:
    print(i,end="\n")
```

	Input	Expected	Got	
✔	20 30 40 50 10 0	10 20 30 40 50	10 20 30 40 50	✔
✔	22 33 44 11 55 0	11 22 33 44 55	11 22 33 44 55	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

◄ Week-05_MCQ

Jump to...

WEEK-05-Extra ►

Started on	Saturday, 18 May 2024, 9:24 AM
State	Finished
Completed on	Saturday, 18 May 2024, 11:55 AM
Time taken	2 hours 31 mins
Marks	4.00/5.00
Grade	**40.00** out of 50.00 (**80**%)
Name	SHARVESH S 2022-CSD-A

Question **1**

Correct

Mark 1.00 out of 1.00

Consider the below words as key words and check the given input is key word or not.

keywords: {break, case, continue, default, defer, else, for, func, goto, if, map, range, return, struct, type, var}

Input format:

Take string as an input from stdin.

Output format:

Print the word is key word or not.

Example Input:

break

Output:

break is a keyword

Example Input:

IF

Output:

IF is not a keyword

For example:

Input	Result
break	break is a keyword
IF	IF is not a keyword

Answer: (penalty regime: 0 %)

```
a=["break", "case", "continue", "default", "defer", "else", "for", "fu
inp=input()
if inp in a:
  print(inp + " is a keyword")
else:
  print(inp + " is not a keyword")
```

	Input	Expected	Got	
✔	break	break is a keyword	break is a keyword	✔

	Input	Expected	Got	
✔	IF	IF is not a keyword	IF is not a keyword	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 1.00 out of 1.00

Given a string s consisting of some words separated by some number of spaces, return the length of the last word in the string.

A word is a maximal substring consisting of non-space characters only.

For example:

Input	Result
Hello World	5
fly me to the moon	4

Answer: (penalty regime: 0 %)

```
str=input()
str=str[::-1]
count=0
for i in str:
    if i!=" ":

        count=count+1
    else:
        break
print(count)
```

	Input	Expected	Got	
✔	Hello World	5	5	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **3**

Correct

Mark 1.00 out of 1.00

Find if a String2 is substring of String1. If it is, return the index of the first occurrence. else return -1.

Sample Input 1

thistest123string

123

Sample Output 1

8

Answer: (penalty regime: 0 %)

```
str1=input()
str2=input()
i=0
c=0
for j in str1:
    if j==str2[i]:
        i=i+1
        c=c+1
        if c==len(str2):
            print(str1.index(str2[0]))
            break
    else:
        c=0
        i=0
```

	Input	Expected	Got	
✔	thistest123string 123	8	8	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **4**

Correct

Mark 1.00 out of 1.00

Verify the given number is cyclic or not.

Input Format

Num1

Num2

Constraints

1<=range<=9999999999

Sample Input 1

12345

45123

Sample Output 1

Yes

Sample Input 2

12345

54123

Sample Output 2

No

Answer: (penalty regime: 0 %)

```
def is_cyclic(num1, num2):
    # Convert numbers to strings
    str_num1 = str(num1)
    str_num2 = str(num2)

    # If lengths are different, they can't be cyclic permutations
    if len(str_num1) != len(str_num2):
        return "No"

    # Check if num2 is a substring of num1 repeated twice
    if str_num2 in (str_num1 * 2):
        return "Yes"
    else:
        return "No"
s1=int(input())
s2=int(input())
print(is_cyclic(s1,s2))
```

	Input	Expected	Got	
✔	12345 45123	Yes	Yes	✔
✔	12345 54123	No	No	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **5**

Incorrect

Mark 0.00 out of 1.00

Write a program to count the duplicates in the given string.

Input Format:
Take String from stdin.

Output Format:
Display the duplicate character and the count of the character.

Example Input:
google w e

Output:

g:2
o:2
e:2

Example Input:

rec

Output:
Not Exists

Answer: (penalty regime: 0 %)

```
a={}
b=input().strip()
l=[]
g=[]
h=[]
u=0
for j in b:
    l.append(j)
for i in l:
    if i in a:
        a[i]+=1
    else:
        a[i]=1
for i in l:
    if ((i in a)&(a[i]>1)):
        print("{}:{}".format(i,a[i]))
        l.remove(i)
        u=u+1
if u==0:
    print("Not Exists")

```

	Input	Expected	Got	
✔	google	g:2 o:2	g:2 o:2	✔
✔	REC	Not Exists	Not Exists	✔

Your code failed one or more hidden tests.
Your code must pass all tests to earn any marks. Try again.

Incorrect

Marks for this submission: 0.00/1.00.

◄ Week-06_MCQ

Jump to...

WEEK-06-Extra ►

Started on	Wednesday, 17 April 2024, 10:25 AM
State	Finished
Completed on	Monday, 20 May 2024, 1:30 PM
Time taken	33 days 3 hours
Marks	5.00/5.00
Grade	**50.00** out of 50.00 (**100**%)
Name	SHARVESH S 2022-CSD-A

Question **1**

Correct

Mark 1.00 out of 1.00

Write a program that reads values from the user until a blank line is entered. Display the total of all of the values entered by the user (or 0 if the first value entered is a blank line). Complete this task using recursion. Your program may not use any loops.
Hint: The body of your recursive function will need to read one value from the user, and then determine whether or not to make a recursive call. Your function does not need to take any arguments, but it will need to return a numeric result.

Sample Input

5
10
15
20
25

Sample Output

75

Answer: (penalty regime: 0 %)

Reset answer

```
def readAndTotal():
        # Read a value from the user
        line=input()

        # Base case: The user entered a blank line so the total is 0
        if line == "":
            return 0

        else:
                # Recursive case: Convert the current line to a numbe
                # subsequent lines

                return int(line)+readAndTotal()


# Read the values from the user and compute the total
v=readAndTotal()

# Display the total
print(v)
```

	Input	Expected	Got	
✔	5 10 15 20 25	75	75	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 1.00 out of 1.00

Write a Python function sumofsquares(m) that takes an integer m returns True if m is a sum of squares and False otherwise. (If m is not positive, your function should return False.)

Here are some examples to show how your function should work.
>>> sumofsquares(41)
True

>>> sumofsquares(30)
False

>>> sumofsquares(17)
True

Answer: (penalty regime: 0 %)

Reset answer

```
from math import *

def issquare(n):
    k = int(sqrt(n))
    return(k*k == n)

def sumofsquares(m):
    if m<=0:
        return False
    i=0
    while i**2<=m:
        sqr =m-i**2
        j= int(sqr**0.5)
        if j**2 == sqr:
            return True
        i+=1
    return False
```

	Test	Expected	Got	
✔	print(sumofsquares(41))	True	True	✔
✔	print(sumofsquares(30))	False	False	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **3**

Correct

Mark 1.00 out of 1.00

Euclid was a Greek mathematician who lived approximately 2,300 years ago. His algorithm for computing the greatest common divisor of two positive integers, a and b, is both efficient and recursive. It is outlined below:

If b is 0 then
  eturn a
Else
  Set c equal to the remainder when a is divided by b
  Return the greatest common divisor of b and c

Write a program that implements Euclid's algorithm and uses it to determine the greatest common divisor of two integers entered by the user. Test your program with some very large integers. The result will be computed quickly, even for huge numbers consisting of hundreds of digits, because Euclid's algorithm is extremely efficient.

Answer: (penalty regime: 0 %)

```
a=int(input())
b=int(input())
def Euclid(x,y):
    while(x!=0):
        c=y%x
        y=x
        x=c
    return y
print(Euclid(a,b))
```

	Input	Expected	Got	
✔	8 12	4	4	✔
✔	720 1000	40	40	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **4**

Correct

Mark 1.00 out of 1.00

A string with parentheses is well bracketed if all parentheses are matched: every opening bracket has a matching closing bracket and vice versa.

Write a Python function wellbracketed(s) that takes a string s containing parentheses and returns True if s is well bracketed and False otherwise.

Hint: Keep track of the nesting depth of brackets. Initially the depth is 0. The depth increases with each opening bracket and decreases with each closing bracket. What are the constraints on the value of the nesting depth for the string to be wellbracketed?

Here are some examples to show how your function should work.

```
>>> wellbracketed("22)")
False

>>> wellbracketed("(a+b)(a-b)")
True

>>> wellbracketed("(a(b+c)-d)((e+f)")
False
```

Answer: (penalty regime: 0 %)

Reset answer

```
def wellbracketed(s):
    depth = 0
    for char in s:
        if char == '(':
            depth += 1
        elif char == ')':
            depth -= 1
            if depth < 0:
                return False
    return depth == 0
```

	Test	Expected	Got	
✔	print(wellbracketed("22)"))	False	False	✔
✔	print(wellbracketed("(a+b)(a-b)"))	True	True	✔
✔	print(wellbracketed("(a(b+c)-d)((e+f)"))	False	False	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **5**

Correct

Mark 1.00 out of 1.00

The notion of a palindrome was introduced previously. In this exercise you will write a recursive function that determines whether or not a string is a palindrome. The empty string is a palindrome, as is any string containing only one character. Any longer string is a palindrome if its first and last characters match, and if the string formed by removing the first and last characters is also a palindrome.

Write a program that reads a string from the user and uses your recursive function to determine whether or not it is a palindrome. Then your program should display an appropriate message for the user.

Sample Input

malayalam

Sample Output

That was a palindrome!

Sample Input

madan

Sample Output

That is not a palindrome.

Answer: (penalty regime: 0 %)

Reset answer

```
def isPalindrome(s):
        # Base case: The empty string is a palindrome. So is a string
        if len(s) <= 1:
          return True
        # Recursive case: The string is a palindrome only if the first
        # the rest of the string is a palindrome
        b=s[1:len(s)-1]
        return s[0]==s[len(s)-1] and isPalindrome(b)

# Check whether or not a string entered by the user is a palindrome
# Read the string from the user
line=input()

# Check its status and display the result
if isPalindrome(line):
   print("That was a palindrome!")
else:
   print("That is not a palindrome.")

```

	Input	Expected	Got	
✔	malayalam	That was a palindrome!	That was a palindrome!	✔
✔	madan	That is not a palindrome.	That is not a palindrome.	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

◄ Week-07_MCQ

Jump to...

WEEK-07-Extra ►

Started on	Monday, 20 May 2024, 3:51 PM
State	Finished
Completed on	Monday, 20 May 2024, 4:12 PM
Time taken	21 mins 14 secs
Marks	5.00/5.00
Grade	**50.00** out of 50.00 (**100**%)
Name	SHARVESH S 2022-CSD-A

Question **1**

Correct

Mark 1.00 out of 1.00

Write a program to unpack the following tuple into variables depends on the length of tuple (Max length = 10) and display each values separately.

Sample Input:

4

10

30

40

60

Sample Output:

a=10

b=30

c=40

d=60

Answer: (penalty regime: 0 %)

```
a=int(input())
for i in range(0,a):
    b=input()
    print(str(chr(97+i)+"="+b))
```

	Input	Expected	Got	
✔	4 10 30 40 60	a=10 b=30 c=40 d=60	a=10 b=30 c=40 d=60	✔

	Input	Expected	Got	
✔	9 15 60 75 85 90 70 35 25 45	a=15 b=60 c=75 d=85 e=90 f=70 g=35 h=25 i=45	a=15 b=60 c=75 d=85 e=90 f=70 g=35 h=25 i=45	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 1.00 out of 1.00

Create a tuple:

my_tuple = ('R','a','j','a','l','a','k','s','h','m','i')

and apply slicing and display the output as shown below:

('R', 'a', 'j', 'a')
('l', 'a', 'k', 's', 'h', 'm', 'i')
('R', 'a', 'j')
('l', 'a', 'k')
('m', 'i')

Answer: (penalty regime: 0 %)

```
tupl=('R','a','j','a','l','a','k','s','h','m','i')
print(tupl[0:4])
print(tupl[4:])
print(tupl[0:3])
print(tupl[4:7])
print(tupl[9:])
```

	Expected	Got	
✔	('R', 'a', 'j', 'a') ('l', 'a', 'k', 's', 'h', 'm', 'i') ('R', 'a', 'j') ('l', 'a', 'k') ('m', 'i')	('R', 'a', 'j', 'a') ('l', 'a', 'k', 's', 'h', 'm', 'i') ('R', 'a', 'j') ('l', 'a', 'k') ('m', 'i')	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **3**

Correct

Mark 1.00 out of 1.00

Write a Python program to check whether an element exists within a tuple.

sample input:

3 : no of elements

REC

RIT

RSB

REC: ELEMENT TO CHECK

SAMPLE OUTPUT:

True

Answer: (penalty regime: 0 %)

```
a=int(input())
l=()
for i in range(0,a):
    b=input()
    l=l+(b,)
o=input()
if o in l:
    print("True")
else:
    print("False")

```

	Input	Expected	Got	
✔	3 REC RIT RSB REC	True	True	✔
✔	2 vijay kumar rec	False	False	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **4**

Correct

Mark 1.00 out of 1.00

Create a tuple, remove an item from the tuple, and display the tuple.

Sample input:

5 : No of items

2020 : tuple items

'd'

"rec"

'python'

'tuple'

python : item to be removed

Sample Output:

('2020','d,'rec','tuple')

For example:

Input	Result
4 samsung vivo redmi Vijay Vijay	('samsung', 'vivo', 'redmi')

Answer: (penalty regime: 0 %)

```
a=int(input())
l=()
for i in range(0,a):
    b=input()
    l=l+(b,)
o=input()
if o in l:
    l=list(l)
    l.remove(o)
    l=tuple(l)
print(l)

```

	Input	Expected	Got	
✔	4 samsung vivo redmi Vijay Vijay	('samsung', 'vivo', 'redmi')	('samsung', 'vivo', 'redmi')	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **5**

Correct

Mark 1.00 out of 1.00

Create different types of tuples as per below-mentioned values and print the same.

()
(4, 5, 8)
(1, 'ECE', 'MCT', 'R&A', 3.4)
('Python', [8, 4, 6], (1, 2, 3))

Answer: (penalty regime: 0 %)

```
a=()
b=(4,5,6)
c=(1,'ECE','MCT','R&A',3.4)
d=('Python',[8,4,6],(1,2,3))
print(a,b,c,d,sep="\n")
```

	Expected	Got	
✔	() (4, 5, 6) (1, 'ECE', 'MCT', 'R&A', 3.4) ('Python', [8, 4, 6], (1, 2, 3))	() (4, 5, 6) (1, 'ECE', 'MCT', 'R&A', 3.4) ('Python', [8, 4, 6], (1, 2, 3))	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

◄ Week-08_MCQ

Jump to...

Week-09_MCQ ►

Started on	Monday, 20 May 2024, 4:12 PM
State	Finished
Completed on	Monday, 20 May 2024, 5:02 PM
Time taken	49 mins 14 secs
Marks	4.00/5.00
Grade	**40.00** out of 50.00 (**80**%)
Name	SHARVESH S 2022-CSD-A

Question **1**

Correct

Mark 1.00 out of 1.00

Take a complete sentence as an input and remove duplicate word in it and print (sorted order), then count all the words which have a length greater than 3 and print.

Input

we are good are we good

Output

are good we

Count = 1

For example:

Input	Result
welcome to rec rec cse ece	cse ece rec to welcome Count = 1

Answer: (penalty regime: 0 %)

```
# Take a complete sentence as input
input_sentence = input()

# Split the sentence into words and remove duplicates (sorted)
unique_words = sorted(set(input_sentence.split()))

# Print the unique words in sorted order
print(" ".join(unique_words))

# Count words with length greater than 3
count = sum(1 for word in unique_words if len(word) > 3)

# Print the count
print("Count =", count)

```

	Input	Expected	Got	
✔	we are good are we good	are good we Count = 1	are good we Count = 1	✔
✔	welcome to rec rec cse ece	cse ece rec to welcome Count = 1	cse ece rec to welcome Count = 1	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 1.00 out of 1.00

Check if a set is a subset of another set.

Example:

Sample Input1:

mango apple

mango orange

mango

output1:

yes

set3 is subset of set1 and set2

```
input2:
```

```
mango orange
```

```
banana orange
```

```
grapes
```

```
output2:
```

no

Answer: (penalty regime: 0 %)

```
# Take inputs
set1 = set(input().split())
set2 = set(input().split())
set3 = set(input().split())

# Check if set3 is a subset of both set1 and set2
if set3.issubset(set1) and set3.issubset(set2):
    print("yes")
    print("set3 is subset of set1 and set2")
else:
    print("No")

```

	Test	Input	Expected	Got	
✔	1	mango apple mango orange mango	yes set3 is subset of set1 and set2	yes set3 is subset of set1 and set2	✔
✔	2	mango orange banana orange grapes	No	No	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **3**

Correct

Mark 1.00 out of 1.00

A number is stable if each digit occur the same number of times.i.e, the frequency of each digit in the number is the same. For e.g. 2277,4004,11,23,583835,1010 are examples for stable numbers.
Similarly, a number is unstable if the frequency of each digit in the number is NOT same.

Sample Input:

2277

Sample Output:

Stable Number

Sample Input 2:

121

Sample Output 2:

Unstable Number

Answer: (penalty regime: 0 %)

```
def is_stable_number(number):
    # Convert the number to a string to iterate through its digits
    number_str = str(number)

    # Count the frequency of each digit using a set
    digit_frequencies = {digit: number_str.count(digit) for digit in

    # Check if all frequencies are the same
    return len(set(digit_frequencies.values())) == 1

# Take input from the user
input_number = input()

# Check if the number is stable or unstable
if is_stable_number(input_number):
    print("Stable Number")
else:
    print("Unstable Number")
```

	Input	Expected	Got	
✔	9988	Stable Number	Stable Number	✔
✔	12	Stable Number	Stable Number	✔
✔	455	Unstable Number	Unstable Number	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **4**

Incorrect

Mark 0.00 out of 1.00

You are given an array of N integers, A1, A2, . . . , AN and an integer K. Return the of count of distinct numbers in all windows of size K.

Input :

1 2 1 3 4 3

3

Output :

2

3

3

2

Explanation

All windows of size K are

[1, 2, 1]

[2, 1, 3]

[1, 3, 4]

[3, 4, 3]

Answer: (penalty regime: 0 %)

```
from collections import deque

def count_distinct_in_windows(arr, k):
    result = []
    window = set(arr[:k])  # Initialize the set with elements of th
    result.append(len(window))  # Count the distinct elements in th

    # Slide the window from left to right
    for i in range(k, len(arr)):
        window.add(arr[i])  # Add the new element to the window
        window.discard(arr[i - k])  # Remove the leftmost element f
        result.append(len(window))  # Count the distinct elements i

    return result

# Input
arr = list(map(int, input().split()))  # Array of integers
k = int(input())  # Window size

# Calculate and print the count of distinct numbers in all windows
result = count_distinct_in_windows(arr, k)
```

	Input	Expected	Got	
✖	1 2 1 3 4 3 3	2 3 3 2	2 2 2 2	✖

Your code must pass all tests to earn any marks. Try again.

Show differences

Incorrect

Marks for this submission: 0.00/1.00.

Question **5**

Correct

Mark 1.00 out of 1.00

Given two lists, print all the common element of two lists.

Note: Sort the list before printing.

Examples:

```
Input :
1 2 3 4 5
5 6 7 8 9
Output :
5

Input :
1 2 3 4 5
6 7 8 9
Output :
No common elements

Input :
1 2 3 4 5 6
5 6 7 8 9
Output :
5 6
```

Answer: (penalty regime: 0 %)

```
# Take input lists
list1 = list(map(int, input("").split()))
list2 = list(map(int, input("").split()))

# Sort the lists
list1.sort()
list2.sort()

# Find common elements
common_elements = []
i, j = 0, 0
while i < len(list1) and j < len(list2):
    if list1[i] == list2[j]:
        common_elements.append(list1[i])
        i += 1
        j += 1
    elif list1[i] < list2[j]:
        i += 1
    else:
        j += 1

# Print common elements or "No common elements" if none found
```

	Input	Expected	Got	
✔	1 2 3 4 5 5 6 7 8 9	5	5	✔
✔	1 2 3 4 5 6 7 8 9	No common elements	No common elements	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

◄ Week-09_MCQ

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WEEK-09-Extra ►

Started on	Thursday, 16 May 2024, 12:28 PM
State	Finished
Completed on	Thursday, 16 May 2024, 12:41 PM
Time taken	13 mins 7 secs
Marks	7.00/7.00
Grade	**50.00** out of 50.00 (**100**%)
Name	SHARVESH S 2022-CSD-A

Question **1**

Correct

Mark 1.00 out of 1.00

Create a program that determines and displays the number of unique characters in a string entered by the user. For example, Hello, World! has 10 unique characters while zzz has only one unique character. Use a dictionary or set to solve this problem.

For example:

Input	Result
Hello, World!	10

Answer: (penalty regime: 0 %)

```
x = input()
y = set(x)
c = x.count(' ')
special = sum(1 for char in x if not char.isalnum() and not char.isspace())
print(len(y))
```

	Input	Expected	Got	
✔	Hello, World!	10	10	✔
✔	zzz	1	1	✔
✔	RECCSE	4	4	✔
✔	AAABBBCCC	3	3	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 1.00 out of 1.00

A teacher wants to evaluate her class results for the subject she handles. She want to do the following analysis:

1. Display Class average
2. Display Maximum mark Roll no
3. Display Minimum mark Roll no

Kindly help her out. Use dictionary for storing the student details.

Input Format:

In line 1 no of students will be given

Followed by n lines containing student rollno and marks

Output Format:

Line 1 Class average

Line 2 Maximum mark Roll no

Line 3 Minimum mark Roll no

Sample Input:

4

01 87

02 99

03 45

04 77

Output:

77

02

03

Answer: (penalty regime: 0 %)

```
n = int(input())
total_marks = 0
max_marks = -1
min_marks = float('inf')
max_roll_no = ""
min_roll_no = ""

for i in range(n):
    roll_no, marks = input().split()
    marks = int(marks)
    total_marks += marks

    if marks > max_marks:
        max_marks = marks
        max_roll_no = roll_no

    if marks < min_marks:
        min_marks = marks
        min_roll_no = roll_no

class_avg = total_marks // n
```

```
print(class avg)
```

	Input	Expected	Got	
✔	4 01 87 02 99 03 45 04 77	77 02 03	77 02 03	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **3**

Correct

Mark 1.00 out of 1.00

Multiply All the Items in a Dictionary

Input: Any input in Dictionary format (Ex: d={'A':10,'B':10,'C':239})

Output: multiplication of dictionary values (23900)

Answer: (penalty regime: 0 %)

```
a = {'a': 10, 'b': 10, 'c': 239}
result = 1
for value in a.values():
    result *= value
print(result)
```

	Input	Expected	Got	
✔	d={'A':10,'B':10,'C':239}	23900	23900	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **4**

Correct

Mark 1.00 out of 1.00

A sentence is a list of words that are separated by a single space with no leading or trailing spaces. Each word consists of lowercase and uppercase English letters.

A sentence can be shuffled by appending the 1-indexed word position to each word then rearranging the words in the sentence.

For example, the sentence "This is a sentence" can be shuffled as "sentence4 a3 is2 This1" or "is2 sentence4 This1 a3".

Given a shuffled sentence s containing no more than 9 words, reconstruct and return the original sentence.

Example 1:

Input:

is2 sentence4 This1 a3

Output:

This is a sentence

Explanation: Sort the words in s to their original positions "This1 is2 a3 sentence4", then remove the numbers.

Example 2:

Input:

Myself2 Me1 I4 and3

Output:

Me Myself and I

Explanation: Sort the words in s to their original positions "Me1 Myself2 and3 I4", then remove the numbers.

Constraints:

2 <= s.length <= 200

s consists of lowercase and uppercase English letters, spaces, and digits from 1 to 9.

The number of words in s is between 1 and 9.

The words in s are separated by a single space.

s contains no leading or trailing spaces.

Answer: (penalty regime: 0 %)

```
s = input().split()
def pos(word):
    return int(word[-1])
s.sort(key=pos)
o = ' '.join(word[:-1] for word in s)
print(o)
```

	Input	Expected	Got	
✔	is2 sentence4 This1 a3	This is a sentence	This is a sentence	✔
✔	Myself2 Me1 Vijay4 and3	Me Myself and Vijay	Me Myself and Vijay	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **5**

Correct

Mark 1.00 out of 1.00

To Check if a Given Key Exists in a Dictionary or Not

Input: Any dictionary format input (Ex: d={'A':1,'B':2,'C':3})

Enter Key to check: A

Output:

Key is present and value of the key is: (location)

Present # True Statement

Not Present # False Statement

Answer: (penalty regime: 0 %)

```
d = {'A':1, 'B':2, 'C':3}
a = input()
if a in d:
    print("Present")
else:
    print("Not Present")
```

	Input	Expected	Got	
✔	A	Present	Present	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **6**

Correct

Mark 1.00 out of 1.00

In the game of Scrabble™, each letter has points associated with it. The total score of a word is the sum of the scores of its letters. More common letters are worth fewer points while less common letters are worth more points. The points associated with each letter are shown below:

Points Letters

1 A, E, I, L, N, O, R, S, T and U

2 D and G

3 B, C, M and P

4 F, H, V, W and Y

5 K

8 J and X

10 Q and Z

Write a program that computes and displays the Scrabble™ score for a word. Create a dictionary that maps from letters to point values. Then use the dictionary to compute the score.

A Scrabble™ board includes some squares that multiply the value of a letter or the value of an entire word. We will ignore these squares in this exercise.

Sample Input

REC

Sample Output

REC is worth 5 points.

Answer: (penalty regime: 0 %)

```
x = {
    'A': 1, 'E': 1, 'I': 1, 'L': 1, 'N': 1, 'O': 1, 'R': 1, 'S': 1, 'T': 1, 'U': 1,
    'D': 2, 'G': 2,
    'B': 3, 'C': 3, 'M': 3, 'P': 3,
    'F': 4, 'H': 4, 'V': 4, 'W': 4, 'Y': 4,
    'K': 5,
    'J': 8, 'X': 8,
    'Q': 10, 'Z': 10}
word = input().upper()
score = sum(x.get(letter, 0) for letter in word)
print("{0} is worth {1} points.".format(word, score))
```

	Input	Expected	Got	
✔	REC	REC is worth 5 points.	REC is worth 5 points.	✔
✔	RAJALAKSHMI	RAJALAKSHMI is worth 27 points.	RAJALAKSHMI is worth 27 points.	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **7**

Correct

Mark 1.00 out of 1.00

Two words are anagrams if they contain all of the same letters, but in a different order. For example, “evil” and “live” are anagrams because each contains one “e”, one “i”, one “l”, and one “v”. Create a program that reads two strings from the user, determines whether or not they are anagrams, and reports the result.

Sample Input 1

evil

live

Sample Output 1

Those strings are anagrams.

Sample Input 2

meet

met

Sample Output 2

Those strings are not anagrams.

Answer: (penalty regime: 0 %)

```
w1 = input().lower()
w2 = input().lower()
word1 = ''.join(sorted(w1))
word2 = ''.join(sorted(w2))
if word1 == word2:
    print("Those strings are anagrams.")
else:
    print("Those strings are not anagrams.")
```

	Input	Expected	Got	
✔	evil live	Those strings are anagrams.	Those strings are anagrams.	✔
✔	meet met	Those strings are not anagrams.	Those strings are not anagrams.	✔
✔	rec cer	Those strings are anagrams.	Those strings are anagrams.	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

◄ Week-10_MCQ

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WEEK-10-Extra ►