

**RAJALAKSHMI ENGINEERING  
COLLEGE**  
**RAJALAKSHMI NAGAR, THANDALAM – 602 105**



**RAJALAKSHMI  
ENGINEERING COLLEGE**

**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**

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Name: \_\_\_\_\_ Branch: \_\_\_\_\_ Sec: \_\_\_\_\_ Roll No: \_\_\_\_\_

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**Started on** Wednesday, 28 February 2024, 10:22 AM

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**State** Finished

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**Completed on** Wednesday, 28 February 2024, 11:48 AM

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**Time taken** 1 hour 26 mins

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**Marks** 5.00/5.00

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**Grade** **50.00** out of 50.00 (**100%**)

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**Name** [SOLAINARAYANAN K S 2022-CSD-A](#)

Question 1

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 %)

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

```
x=int(input())
y=int(input())
z=int(input())
c=int(x+y)
pr=int(z-c)
print("%.2f is the gain percent."%(pr*100/c))
```

	Input	Expected	Got	
✓	10000 250 15000	46.34 is the gain percent.	46.34 is the gain percent.	✓
✓	45500 500 60000	30.43 is the gain percent.	30.43 is the gain percent.	✓

	Input	Expected	Got	
✓	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 **2**

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 %)

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

```
a=float(input())
print("%.3f"%(a**(1/2)))
```

	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.

Question 3

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 %)

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

```
a=int(input())
b=abs((a-500)/130)
print("weekdays %.2f"%(b+10))
print("weekend %.2f"%(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	✓



	Input	Expected	Got	
✓	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 **4**

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 %)

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

```
a=int(input())
b=float(input())
print(a,type(a),sep=",")
print("%.1f"%b,type(b),sep=",")
```

	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 5

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 %)

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

```
a=int(input())
b=int(input())
c=float((a*0.10)+(b*0.25))
print("Your total refund will be $%.2f"%(c))
```

	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.	✓
✓	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.

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<b>Started on</b>	Tuesday, 5 March 2024, 8:21 AM
<b>State</b>	Finished
<b>Completed on</b>	Tuesday, 5 March 2024, 8:46 AM
<b>Time taken</b>	24 mins 38 secs
<b>Marks</b>	5.00/5.00
<b>Grade</b>	<b>50.00</b> out of 50.00 ( <b>100%</b> )
<b>Name</b>	<a href="#">SOLAINARAYANAN K S 2022-CSD-A</a>

Question 1

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 %)

```
1 a=int(input())
2 b=int(input())
3 c=int(a*75)
4 d=int(b*112)
5 print("The total weight of all these widgets and gizmos is %d grams"%(c+d))
```

	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 **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 %)

```
1 a=int(input())
2 b=int(input())
3 if(a>=18 and b>40):
4     print("True")
5 else:
6     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

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 %)

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

	Input	Expected	Got	
✓	56	True	True	✓

Passed all tests! ✓

**Correct**

Marks for this submission: 1.00/1.00.



Question **4**

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 b=chr(a+67)
3 print(b)
```

	Input	Expected	Got	
✓	0	C	C	✓
✓	1	D	D	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 5

Correct

Mark 1.00 out of 1.00

In the 1800s, the battle of Troy was led by Hercules. He was a superstitious person. He believed that his crew can win the battle only if the total count of the weapons in hand is in multiple of 3 and the soldiers are in an even number of count. Given the total number of weapons and the soldier's count, Find whether the battle can be won or not according to Hercules's belief. If the battle can be won print True otherwise print False.

Input format:

Line 1 has the total number of weapons

Line 2 has the total number of Soldiers.

Output Format:

If the battle can be won print True otherwise print False.

Sample Input:

32

43

Sample Output:'

False

Answer: (penalty regime: 0 %)

```
1 w=int(input())
2 s=int(input())
3 if(w%3==0 and s%2==0):
4     print("True")
5 else:
6     print("False")
```

	Input	Expected	Got	
✓	32 43	False	False	✓
✓	273 7890	True	True	✓
✓	800 4590	False	False	✓
✓	6789 32996	True	True	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

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**Started on** Monday, 20 May 2024, 11:43 AM

**State** Finished

**Completed on** Monday, 20 May 2024, 12:09 PM

**Time taken** 25 mins 57 secs

**Marks** 5.00/5.00

**Grade** **50.00** out of 50.00 (**100%**)

**Name** [SOLAINARAYANAN K S 2022-CSD-A](#)

Question 1

Correct

Mark 1.00 out of 1.00

A triangle can be classified based on the lengths of its sides as equilateral, isosceles or scalene. All three sides of an equilateral triangle have the same length. An isosceles triangle has two sides that are the same length, and a third side that is a different length. If all of the sides have different lengths then the triangle is scalene.

Write a program that reads the lengths of the three sides of a triangle from the user. Then display a message that states the triangle's type.

Sample Input 1

60

60

60

Sample Output 1

That's a equilateral triangle

Sample Input 2

40

40

80

Sample Output 2

That's a isosceles triangle

Sample Input 3

50

60

70

Sample Output 3

That's a scalene triangle

**For example:**

Input	Result
60 60 60	That's a equilateral triangle
40 40 80	That's a isosceles triangle

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

```
1 side1 = int(input())
2 side2 = int(input())
3 side3 = int(input())
4 if side1 == side2 == side3:
5     print("That's a equilateral triangle")
6 elif side1 == side2 or side1 == side3 or side2 == side3:
7     print("That's a isosceles triangle")
8 else:
9     print("That's a scalene triangle")
10
```

	Input	Expected	Got	
✓	60 60 60	That's a equilateral triangle	That's a equilateral triangle	✓
✓	40 40 80	That's a isosceles triangle	That's a isosceles triangle	✓
✓	50 60 70	That's a scalene triangle	That's a scalene triangle	✓
✓	50 50 80	That's a isosceles triangle	That's a isosceles triangle	✓
✓	10 10 10	That's a equilateral triangle	That's a equilateral triangle	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **2**  
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 %)

```
1 letter = input().lower()
2 if letter in 'aeiou':
3     print("It's a vowel.")
4 elif letter == 'y':
5     print("Sometimes it's a vowel... Sometimes it's a consonant.")
6 else:
7     print("It's a consonant.")
8
```

	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.	✓



	Input	Expected	Got	
✓	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 **3**

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 %)

```
1 number = int(input())
2 if number % 2 == 0:
3     print(number,"is even.")
4 else:
5     print(number,"is odd.")
6
```

	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.

Question **4**

Correct

Mark 1.00 out of 1.00

In the 1800s, the battle of Troy was led by Hercules. He was a superstitious person. He believed that his crew can win the battle only if the total count of the weapons in hand is in multiple of 3 and the soldiers are in an even number of count. Given the total number of weapons and the soldier's count, Find whether the battle can be won or not according to Hercules's belief. If the battle can be won print True otherwise print False.

**Input format:**

Line 1 has the total number of weapons  
Line 2 has the total number of Soldiers.

**Output Format:**

If the battle can be won print True otherwise print False.

Sample Input:

32  
43

Sample Output:  
False

**For example:**

Input	Result
32 43	False

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

```
1 weapons = int(input())
2 soldiers = int(input())
3 if weapons % 3 == 0 and soldiers % 2 == 0:
4     print(True)
5 else:
6     print(False)
7
```

	Input	Expected	Got	
✓	32 43	False	False	✓
✓	273 7890	True	True	✓
✓	800 4590	False	False	✓

	Input	Expected	Got	
✓	6789 32996	True	True	✓

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 to find the eligibility of admission for a professional course based on the following criteria:

Marks in Maths  $\geq 65$

Marks in Physics  $\geq 55$

Marks in Chemistry  $\geq 50$

Or

Total in all three subjects  $\geq 180$

Sample Test Cases

Test Case 1

Input

70

60

80

Output

The candidate is eligible

Test Case 2

Input

50

80

80

Output

The candidate is eligible

Test Case 3

Input

50

60

40

Output

The candidate is not eligible

For example:

Input	Result
70 60 80	The candidate is eligible

Answer: (penalty regime: 0 %)

```
1 maths = int(input())
2 physics = int(input())
3 chemistry = int(input())
4
5 if (maths >= 65 and physics >= 55 and chemistry >= 50) or (maths + physics + chemistry >= 180):
6     print("The candidate is eligible")
7 else:
8     print("The candidate is not eligible")
9
10
```

	Input	Expected	Got	
✓	70 60 80	The candidate is eligible	The candidate is eligible	✓
✓	50 80 80	The candidate is eligible	The candidate is eligible	✓
✓	50 60 40	The candidate is not eligible	The candidate is not eligible	✓
✓	20 10 25	The candidate is not eligible	The candidate is not eligible	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

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<b>Started on</b>	Monday, 22 April 2024, 9:40 PM
<b>State</b>	Finished
<b>Completed on</b>	Monday, 22 April 2024, 9:58 PM
<b>Time taken</b>	17 mins 52 secs
<b>Marks</b>	5.00/5.00
<b>Grade</b>	<b>50.00</b> out of 50.00 ( <b>100%</b> )
<b>Name</b>	<a href="#">SOLAINARAYANAN K S 2022-CSD-A</a>

Question 1

Correct

Mark 1.00 out of 1.00

Write a program to find the sum of the series  $1 + 11 + 111 + 1111 + \dots + n$  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 %)

```
1 n = int(input())
2 sum = 0
3 x = 1
4 for i in range(n):
5     sum += x
6     x = (x*10)+1
7 print(sum)
```

	Input	Expected	Got	
✓	1	1	1	✓
✓	3	123	123	✓



	Input	Expected	Got	
✓	4	1234	1234	✓
✓	7	1234567	1234567	✓

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 find the sum of the series  $1 + 11 + 111 + 1111 + \dots + n$  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 %)

```
1 n = int(input())
2 sum = 0
3 x = 1
4 for i in range(n):
5     sum += x
6     x = (x*10)+1
7 print(sum)
```

	Input	Expected	Got	
✓	1	1	1	✓
✓	3	123	123	✓

	Input	Expected	Got	
✓	4	1234	1234	✓
✓	7	1234567	1234567	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 3

Correct

Mark 1.00 out of 1.00

Determine the factors of a number (i.e., all positive integer values that evenly divide into a number).

For example:

Input	Result
20	1 2 4 5 10 20

Answer: (penalty regime: 0 %)

```
1 n = int(input())
2 for i in range(1,n+1):
3     if(n%i==0):
4         print(i, end=" ")
```

	Input	Expected	Got	
✓	20	1 2 4 5 10 20	1 2 4 5 10 20	✓
✓	5	1 5	1 5	✓
✓	13	1 13	1 13	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 4

Correct

Mark 1.00 out of 1.00

**Strong Number:**

Strong number is a special number whose sum of factorial of digits is equal to the original number.

For example: 145 is strong number. Since,  $1! + 4! + 5! = 145$ .

Write a program to find whether the given number is a Strong Number or not.

**Input Format:**

The Input consists of a single integer n.

**Output Format:**

Output consists of a single word 'Yes' or 'No'.

**Sample Input 1:**

145

**Sample Output 1:**

Yes

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

```
1 def factorial(num):
2     if num == 0:
3         return 1
4     else:
5         return num * factorial(num - 1)
6 n = int(input())
7 original_number = n
8 sum_of_factorials = 0
9 while n > 0:
10     digit = n % 10
11     sum_of_factorials += factorial(digit)
12     n //= 10
13 if original_number == sum_of_factorials:
14     print("Yes")
15 else:
16     print("No")
```

	Input	Expected	Got	
✓	145	Yes	Yes	✓
✓	40585	Yes	Yes	✓
✓	4321	No	No	✓
✓	2	Yes	Yes	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 5

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  $x_1$  and moves at a speed  $v_1$  meters per jump.
- The second kangaroo starts at position  $x_2$  and moves at a speed of  $v_2$  meters per jump and  $x_2 > x_1$
- 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:**

$x_1$ -position of kangaroo1  
 $v_1$ -Speed of kangaroo1  
 $x_2$ -position of kangaroo2  
 $v_2$ -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 %)

```
1 def kangaroo_meeting(x1, v1, x2, v2, k):
2     if v1 == v2:
3         if x1 == x2:
4             return "YES"
5         else:
6             return "NO"
7     else:
8         time_to_meet = (x2 - x1) / (v1 - v2)
9         if time_to_meet > 0 and time_to_meet.is_integer() and time_to_meet <= k:
10            return "YES"
11        else:
12            return "NO"
13
14 # Example usage:
15 x1 = int(input())
16 v1 = int(input())
17 x2 = int(input())
18 v2 = int(input())
19 k = int(input())
20
21 result = kangaroo_meeting(x1, v1, x2, v2, k)
22 print(result)
```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

◀ Week-04\_MCQ

Jump to...

WEEK-04-Extra ▶

[Dashboard](#) / [My courses](#) / [CD19411-PPD-2022](#) / [WEEK 05-Lists](#) / [WEEK-05 CODING](#)

Started on	Wednesday, 20 March 2024, 11:07 AM
State	Finished
Completed on	Monday, 22 April 2024, 10:22 PM
Time taken	33 days 11 hours
Marks	5.00/5.00
Grade	50.00 out of 50.00 (100%)
Name	<a href="#">SOLAINARAYANAN K S 2022-CSD-A</a>

Question 1

Correct

Mark 1.00 out of 1.00

Consider the following program statement:

One needs to first input a set of N number of ALPHABETIC Strings each representing a name of a student in an array studname [N]. Assume each string can be Max. 40 Character Long. Subsequently, one needs to input Marks obtained by those students in another array marks [N]. Assume that studname[i] i.e. ith student in the list of student names has obtained Marks [i] in the Marks List. You need to find out and print the Max Marks obtained by a student and also print the name of the student who has obtained this marks. Considering here both the arrays of size 5. Complete the program by filling up required code in editable section.

Sample Test Cases

Test Case 1

Input

Amit

Bratin

Sandip

Sundar

Patrick

34

48

23

16

45

Output

48

Bratin

Test Case 2

Input

Amit

Bratin

Sandip

Sundar

Patrick

49

48

34

23

45

Output

49

Amit

**For example:**



Input	Result
Amit	90
Bratin	Bratin
Sandip	
Sundar	
Patrick	
89	
90	
45	
67	
82	

Answer: (penalty regime: 0 %)

```
1 def main():
2     n=5
3     studname=[input() for _ in range(n)]
4     marks=[int(input()) for _ in range(n)]
5
6     max_marks = marks[0]
7     max_marks_index = 0
8
9     for i in range(1,n):
10         if marks[i] > max_marks:
11             max_marks = marks[i]
12             max_marks_index = i
13
14     print(max_marks)
15     print(studname[max_marks_index])
16
17 if __name__ == "__main__":
18     main()
```

	Input	Expected	Got	
✓	Amit Bratin Sandip Sundar Patrick 89 90 45 67 82	90 Bratin	90 Bratin	✓
✓	Amit Bratin Sandip Sundar Patrick 34 48 23 16 45	48 Bratin	48 Bratin	✓
✓	Amit Bratin Sandip Sundar Patrick 49 48 34 23 45	49 Amit	49 Amit	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 1.00 out of 1.00

Create a program that reads integers from the user until a -99 is entered. Once all of the integers have been read your program should display all of the negative numbers, followed by all of the zeros, followed by all of the positive numbers. Within each group, the numbers should be displayed in the same order that they were entered by the user. For example, if the user enters the values 3, -4, 1, 0, -1, 0, and -2 then your program should output the values -4, -1, -2, 0, 0, 3, and 1. Your program should display each value on its own line.(-99 is not included in the final display)

Sample Input

0  
5  
10  
-15  
-20  
-99

Sample Output

-15  
-20  
0  
5  
10

For example:

Input	Result
0	-15
5	-20
10	0
-15	5
-20	10
-99	

Answer: (penalty regime: 0 %)

```
1 negatives = []
2 zeros = []
3 positives = []
4
5 while True:
6     num = int(input())
7     if num == -99:
8         break
9     elif num < 0:
10        negatives.append(num)
11    elif num == 0:
12        zeros.append(num)
13    else:
14        positives.append(num)
15
16 for num in negatives:
17     print(num)
18 for num in zeros:
19     print(num)
```

```
20 | for num in positives:
21 |     print(num)
```

	Input	Expected	Got	
✔	0	-15	-15	✔
	5	-20	-20	
	10	0	0	
	-15	5	5	
	-20	10	10	
	-99			
✔	10	-40	-40	✔
	20	-50	-50	
	30	0	0	
	-40	10	10	
	-50	20	20	
	0	30	30	
	-99			

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **3**

Correct

Mark 1.00 out of 1.00

Program to print all the distinct elements in an array. Distinct elements are nothing but the unique (non-duplicate) elements present in the given array.

Input Format:

First line take an Integer input from stdin which is array length n.

Second line take n Integers which is inputs of array.

Output Format:

Print the Distinct Elements in Array in single line which is space Separated

Example Input:

5

1 2 2 3 4

Output:

1 2 3 4

Example Input:

6

1 1 2 2 3 3

Output:

1 2 3

**For example:**

Input	Result
5	1 2 3 4
1	
2	
2	
3	
4	

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

```
1 n = int(input())
2 arr = [int(input()) for _ in range(n)]
3 d = []
4 for num in arr:
5     if num not in d:
6         d.append(num)
7
8 print(*d)
```

	Input	Expected	Got	
✓	5 1 2 2 3 4	1 2 3 4	1 2 3 4	✓
✓	6 1 1 2 2 3 3	1 2 3	1 2 3	✓
✓	5 11 22 11 22 11	11 22	11 22	✓
✓	10 1 2 3 4 5 1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 4

Correct

Mark 1.00 out of 1.00

A teacher in a school entered marks in an array. But mistakenly the teacher repeated the marks twice in between the array. Help the teacher to find how many elements are duplicated in an array

**Input:**  
n – number of elements and the elements to be stored in an array.

**Output:**  
d- number of duplicate elements

**Sample Test Case**

**Input**  
8  
21 35 56 67 67 89 89 90

**Output**  
2

**Explanation**  
The numbers 67 and 89 are repeated , so count is 2

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

```
1 n = int(input())
2 marks = list(map(int, input().split()))
3 duplicates = len(marks) - len(set(marks))
4 print(duplicates)
```

	Input	Expected	Got	
✓	8 21 35 56 67 67 89 89 90	2	2	✓
✓	12 56 56 78 78 90 90 95 97 97 99 99 89	5	5	✓
✓	4 67 67 89 90	1	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 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 %)

```
1 list1 = input().split()
2 list2 = input().split()
3 list1 = set(list1)
4 list2 = set(list2)
5 common_member = False
6 for item in list1:
7     if item in list2:
8         common_member = True
9         break
10 print(common_member)
11
```

	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.

◀ Week-05\_MCQ

Jump to...

WEEK-05-Extra ▶



[Dashboard](#) / [My courses](#) / [CD19411-PPD-2022](#) / [WEEK 06-Strings](#) / [WEEK-06 CODING](#)

Started on	Monday, 22 April 2024, 10:23 PM
State	Finished
Completed on	Monday, 22 April 2024, 10:31 PM
Time taken	8 mins 9 secs
Marks	5.00/5.00
Grade	50.00 out of 50.00 (100%)
Name	<a href="#">SOLAINARAYANAN K S 2022-CSD-A</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 %)

```
1 | n = input()
2 | li = ["break", "if", "else", "continue", "for", "case", "default", "defer", "func", "goto", "map",
3 | if n in li:
4 |     print("{} is a keyword".format(n))
5 | else:
6 |     print("{} is not a keyword".format(n))
```

	Input	Expected	Got	
✓	break	break is a keyword	break is a keyword	✓
✓	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

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 %)

```
1 n = input()
2 li = ["break", "if", "else", "continue", "for", "case", "default", "defer", "func", "goto", "map",
3 if n in li:
4     print("{} is a keyword".format(n))
5 else:
6     print("{} is not a keyword".format(n))
```

	Input	Expected	Got	
✓	break	break is a keyword	break is a keyword	✓
✓	IF	IF is not a keyword	IF is not a keyword	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.



Question 3

Correct

Mark 1.00 out of 1.00

Write a code to reverse the case of a character input

Input Format:

Single character Input

Output Format:

Reversed character

Example Input:

R

Output:

r

Example Input:

a

Output:

A

For example:

Input	Result
R	r
a	A

Answer: (penalty regime: 0 %)

```
1 char = input()
2 if char.isupper():
3     reversed_char = char.lower()
4 else:
5     reversed_char = char.upper()
6 print(reversed_char)
```

	Input	Expected	Got	
✓	R	r	r	✓
✓	a	A	A	✓

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 %)

```
1 a = (input())
2 b = (input())
3 n = a+a
4 if b in n:
5     print("Yes")
6 else:
7     print("No")
```

	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**

Correct

Mark 1.00 out of 1.00

Given two Strings s1 and s2, remove all the characters from s1 which is present in s2.

Constraints

1<= string length <= 200

Sample Input 1

experience  
enc

Sample Output 1

xpri

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

```
1 s1 = input()
2 s2 = input()
3 s1_filtered = ''.join([char for char in s1 if char not in s2])
4 print(s1_filtered)
```

	Input	Expected	Got	
✓	experience enc	xpri	xpri	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

◀ Week-06\_MCQ

Jump to...

WEEK-06-Extra ▶





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<b>Started on</b>	Monday, 22 April 2024, 10:32 PM
<b>State</b>	Finished
<b>Completed on</b>	Monday, 22 April 2024, 10:52 PM
<b>Time taken</b>	20 mins 35 secs
<b>Marks</b>	5.00/5.00
<b>Grade</b>	<b>50.00</b> out of 50.00 ( <b>100%</b> )
<b>Name</b>	<a href="#">SOLAINARAYANAN K S 2022-CSD-A</a>

Question 1

Correct

Mark 1.00 out of 1.00

Given an integer  $n$ , return an list of length  $n + 1$  such that for each  $i$  ( $0 \leq i \leq n$ ),  $ans[i]$  is the number of 1's in the binary representation of  $i$ .

Example:

Input:  $n = 2$   
Output:  $[0, 1, 1]$   
Explanation:  
 $0 \rightarrow 0$   
 $1 \rightarrow 1$   
 $2 \rightarrow 10$

Example2:

Input:  $n = 5$   
Output:  $[0, 1, 1, 2, 1, 2]$   
Explanation:  
 $0 \rightarrow 0$   
 $1 \rightarrow 1$   
 $2 \rightarrow 10$   
 $3 \rightarrow 11$   
 $4 \rightarrow 100$   
 $5 \rightarrow 101$

Note: Complete the given function alone

For example:

Test	Result
<code>print(CountingBits(5))</code>	<code>[0, 1, 1, 2, 1, 2]</code>

Answer: (penalty regime: 0 %)

Reset answer

1

2

3

4

5

```
def CountingBits(n):  
    ans = [0] * (n + 1)  
    for i in range(1, n + 1):  
        ans[i] = ans[i >> 1] + (i & 1)  
    return ans
```

	Test	Expected	Got	
✓	<code>print(CountingBits(2))</code>	<code>[0, 1, 1]</code>	<code>[0, 1, 1]</code>	✓
✓	<code>print(CountingBits(5))</code>	<code>[0, 1, 1, 2, 1, 2]</code>	<code>[0, 1, 1, 2, 1, 2]</code>	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 2

Correct

Mark 1.00 out of 1.00

A list rotation consists of taking the last element and moving it to the front. For instance, if we rotate the list [1,2,3,4,5], we get [5,1,2,3,4]. If we rotate it again, we get [4,5,1,2,3].

Write a Python function `rotatelist(l,k)` that takes a list `l` and a positive integer `k` and returns the list `l` after `k` rotations. If `k` is not positive, your function should return `l` unchanged. Note that your function should not change `l` itself, and should return the rotated list.

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

```
>>> rotatelist([1,2,3,4,5],1)
[5, 1, 2, 3, 4]

>>> rotatelist([1,2,3,4,5],3)
[3, 4, 5, 1, 2]

>>> rotatelist([1,2,3,4,5],12)
[4, 5, 1, 2, 3]
```

Answer: (penalty regime: 0 %)

Reset answer

```
1 def rotatelist(l,k):
2     n = len(l)
3     k = k % n
4     return l[-k:] + l[:-k]
```

	Test	Expected	Got	
✓	print(rotatelist([1,2,3,4,5],1))	[5, 1, 2, 3, 4]	[5, 1, 2, 3, 4]	✓
✓	print(rotatelist([1,2,3,4,5],3))	[3, 4, 5, 1, 2]	[3, 4, 5, 1, 2]	✓
✓	print(rotatelist([1,2,3,4,5],12))	[4, 5, 1, 2, 3]	[4, 5, 1, 2, 3]	✓

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  
    return 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 %)

```
1 def gcd(a, b):
2     if b == 0:
3         return a
4     else:
5         c = a % b
6         return gcd(b, c)
7 a = int(input())
8 b = int(input())
9 result = gcd(a, b)
10 print(result)
11
```

	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

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

```

1 def readAndTotal():
2
3     user_input = input().strip()
4
5
6     if user_input == '':
7         return 0
8
9
10    return int(user_input) + readAndTotal()
11
12
13 total_sum = readAndTotal()
14
15
16 print(total_sum)

```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 5

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](#)

```
1 from math import *
2
3 def issquare(n):
4     k = int(sqrt(n))
5     return(k*k == n)
6
7 def sumofsquares(m):
8     if m <= 0:
9         return False
10    i = 0
11    while i**2 <= m:
12        j_squared = m - i**2
13        j = int(j_squared**0.5)
14        if j**2 == j_squared:
15            return True
16        i += 1
17    return False
18
19
```

	Test	Expected	Got	
✓	<code>print(sumofsquares(41))</code>	True	True	✓
✓	<code>print(sumofsquares(30))</code>	False	False	✓

Passed all tests! ✓

**Correct**

Marks for this submission: 1.00/1.00.

[◀ Week-07\\_MCQ](#)

Jump to...

[WEEK-07-Extra ▶](#)

[Dashboard](#) / [My courses](#) / [CD19411-PPD-2022](#) / [WEEK 08-Tuple](#) / [WEEK-08\\_CODING](#)

Started on	Friday, 3 May 2024, 12:17 PM
State	Finished
Completed on	Thursday, 16 May 2024, 11:44 AM
Time taken	12 days 23 hours
Marks	5.00/5.00
Grade	50.00 out of 50.00 (100%)
Name	<a href="#">SOLAINARAYANAN K S 2022-CSD-A</a>



Question 1

Correct

Mark 1.00 out of 1.00

Write a python program to count the no. of Occurrence of an item in the tuple and print the list of items and no. of Occurrence more than one time in sorted order.

Input formate:

10 numbers in 10 lines

Sample Input:

50

70

40

60

70

50

80

60

20

60

Sample Output:

50:2

60:3

70:2

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

```
1 numbers = [int(input()) for i in range(10)]
2 c = {}
3 for num in numbers:
4     if num in c:
5         c[num] += 1
6     else:
7         c[num] = 1
8 result = [(num, count) for num, count in c.items() if count > 1]
9 result.sort()
10 for num, count in result:
11     print("{}:{}".format(num, count))
```

	Input	Expected	Got	
✓	50	50:2	50:2	✓
	70	60:3	60:3	
	40	70:2	70:2	
	60			
	70			
	50			
	80			
	60			
	20			
	60			
✓	40	10:2	10:2	✓
	50	30:3	30:3	
	30	40:2	40:2	
	60			
	30			
	20			
	40			
	10			
	30			
	10			

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 read a string and a character and find the whether the character is available in the string or not. Print True if the character is present in the string, False otherwise.

Sample Input

Rakalakshmi

a

Sample Output

True

Sample Input

Rakalakshmi

b

Sample Output

False

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

```
1 a = input()
2 b = input()
3 if b in a:
4     print("True")
5 else:
6     print("False")
```

	Input	Expected	Got	
✓	Rajalakshmi a	True	True	✓
✓	Rajalakshmi b	False	False	✓

Passed all tests! ✓

**Correct**

Marks for this submission: 1.00/1.00.

Question 3

Correct

Mark 1.00 out of 1.00

Rahul went to a supermarket to buy some product, he has purchased the products and about to pay the bill, where the items he purchased is been stored in a nested tuples in the following order ((item\_name,item\_cost,no\_of\_item)), consider raju has purchased 5 items, calculate the total cost for the items he purchased.

sample input:

bread

45

5

milk

40

2

cheese

60

2

butter

90

2

jam

60

2

sample output: 725

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

```
1 # Initialize an empty list to store the items
2 items = []
3
4 for _ in range(5):
5     item_name = input()
6     item_cost = int(input())
7     no_of_item = int(input())
8     items.append((item_name, item_cost, no_of_item))
9
10 total_cost = sum(cost * quantity for _, cost, quantity in items)
11
12 print(total_cost)
13
```

	Input	Expected	Got	
✓	bread 45 5 milk 40 2 cheese 60 2 butter 90 2 jam 60 2	725	725	✓
✓	noodles 55 5 egg 10 10 ketchup 80 2 cooldrinks 100 2 fruit 160 2	1055	1055	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **4**

Correct

Mark 1.00 out of 1.00

Write a python program to read a string and a character, print the number of occurrence of the character in the string and the location of the first occurrence.

Note: To convert an input string to tuple use tuple(variablename).

Sample Input

Apple

p

Sample Output

2

1

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

```
1 a = input()
2 b = input()
3 print(a.count(b))
4 print(a.find(b))
```

	Input	Expected	Got	
✓	Apple p	2 1	2 1	✓
✓	Rajalakshmi a	3 1	3 1	✓

Passed all tests! ✓

**Correct**

Marks for this submission: 1.00/1.00.

Question **5**

Correct

Mark 1.00 out of 1.00

A customer wants to buy a mobile phone in a online mart, the customer finds different prices from different seller, the item price is been stored in a nested tuples in the following order ((seller\_name,item-name,item\_cost)), consider the tuple has 5 seller, write a program to help the customer to view in the order of lowest price of item first and so on.

sample input:

```
seller_1
samsung
45000.00
seller_2
samsung
45500.00
seller_3
samsung
44700.00
seller_4
samsung
43900.00
seller_5
samsung
44100.00
```

sample output:

```
("seller_4","samsung","43900.00"),("seller_5","samsung","44100.00"),("seller_3","samsung","44700.00"),
("seller_1","samsung","45000.00"),("seller_2","samsung","45500.00"))
```

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

```
1 sellers = []
2 for _ in range(5):
3     seller_name = input()
4     item_name = input()
5     item_cost = float(input())
6     sellers.append((seller_name, item_name, "{:.2f}".format(item_cost)))
7 sorted_sellers = sorted(sellers, key=lambda x: x[2])
8 print(tuple(sorted_sellers))
9
```

	Input	Expected	Got	
✓	seller_1 samsung 45000.00 seller_2 samsung 45500.00 seller_3 samsung 44700.00 seller_4 samsung 43900.00 seller_5 samsung 44100.00	((('seller_4', 'samsung', '43900.00'), ('seller_5', 'samsung', '44100.00'), ('seller_3', 'samsung', '44700.00'), ('seller_1', 'samsung', '45000.00'), ('seller_2', 'samsung', '45500.00'))	((('seller_4', 'samsung', '43900.00'), ('seller_5', 'samsung', '44100.00'), ('seller_3', 'samsung', '44700.00'), ('seller_1', 'samsung', '45000.00'), ('seller_2', 'samsung', '45500.00'))	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

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<b>Started on</b>	Thursday, 16 May 2024, 11:45 AM
<b>State</b>	Finished
<b>Completed on</b>	Thursday, 16 May 2024, 11:55 AM
<b>Time taken</b>	10 mins 51 secs
<b>Marks</b>	5.00/5.00
<b>Grade</b>	<b>50.00</b> out of 50.00 ( <b>100%</b> )
<b>Name</b>	<a href="#">SOLAINARAYANAN K S 2022-CSD-A</a>

Question 1

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 %)

```
1 list1 = list(map(int, input().split()))
2 list2 = list(map(int, input().split()))
3 list1.sort()
4 list2.sort()
5 set1 = set(list1)
6 set2 = set(list2)
7 common_elements = sorted(set1 & set2)
8 if common_elements:
9     print(" ".join(map(str, common_elements)))
10 else:
11     print("No common elements")
12
```

	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.

Question **2**

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 %)

```
1 a = set(input().split())
2 print(' '.join(sorted(a)))
3 print("Count = {}".format(sum(1 for word in a if len(word)>3)))
```

	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 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 %)

```

1 def is_stable_number(number):
2
3     number_str = str(number)
4     digit_count = {}
5     for digit in number_str:
6         if digit in digit_count:
7             digit_count[digit] += 1
8         else:
9             digit_count[digit] = 1
10    frequency_values = set(digit_count.values())
11    if len(frequency_values) == 1:
12        return "Stable Number"
13    else:
14        return "Unstable Number"
15    user_input = input()
16
17
18 try:
19     number = int(user_input)
20 except ValueError:
21     print()
22     exit()

```

	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**

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 %)

```
1 a = set(input())
2 b = set(input())
3 c = set(input())
4 if c.issubset(a):
5     print("yes\nset3 is subset of set1 and set2")
6 else:
7     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 **5**

Correct

Mark 1.00 out of 1.00

Mr.Harish is maintaining a phone directory which stores phone numbers. He will update the directory with phone numbers every week. While entering the input the number should not be stored inside if the phone number already exists. Finally he want his phone number to be printed in ascending order

Input: n – A1 array size and m – A2 arraysize

Array A1 containing phone numbers already existing and Array A2 containing numbers to be inserted

Ouput : Phone numbers printed in ascending order

Sample Test Case

Input

5

6

9840403212 9890909012 98123455 90123456 99123456

90909090 99999999 9840403212 12345678 12347890 99123456

Output

12345678 12347890 90123456 90909090 98123455 99123456 99999999 9840403212 9890909012

Answer: (penalty regime: 0 %)

```
1 n = int(input())
2 m = int(input())
3 A1 = set(input().split())
4 A2 = input().split()
5 for num in A2:
6     if num not in A1:
7         A1.add(num)
8 A1_integers = [int(num) for num in A1]
9 print(" ".join(map(str, sorted(A1_integers))))
10
```

	Input	Expected	Got	
✓	3 3 9876543211 1122334455 6677889911 6677889911 9876543211 4455667788	1122334455 4455667788 6677889911 9876543211	1122334455 4455667788 6677889911 9876543211	✓
✓	5 6 9840403212 9890909012 98123455 90123456 99123456 90909090 99999999 9840403212 12345678 12347890 99123456	12345678 12347890 90123456 90909090 98123455 99123456 99999999 9840403212 9890909012	12345678 12347890 90123456 90909090 98123455 99123456 99999999 9840403212 9890909012	✓

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, 12:01 PM
State	Finished
Completed on	Thursday, 16 May 2024, 12:43 PM
Time taken	42 mins 41 secs
Marks	7.00/7.00
Grade	50.00 out of 50.00 (100%)
Name	<a href="#">SOLAINARAYANAN K S 2022-CSD-A</a>

Question 1

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 %)

```
1 a = {'a': 10, 'b': 10, 'c': 239}
2 result = 1
3 for value in a.values():
4     result *= value
5 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 **2**

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 %)

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

	Input	Expected	Got	
✓	A	Present	Present	✓

Passed all tests! ✓

**Correct**

Marks for this submission: 1.00/1.00.

Question 3

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 %)

```
1 x = {
2     'A': 1, 'E': 1, 'I': 1, 'L': 1, 'N': 1, 'O': 1, 'R': 1, 'S': 1, 'T': 1, 'U': 1,
3     'D': 2, 'G': 2,
4     'B': 3, 'C': 3, 'M': 3, 'P': 3,
5     'F': 4, 'H': 4, 'V': 4, 'W': 4, 'Y': 4,
6     'K': 5,
7     'J': 8, 'X': 8,
8     'Q': 10, 'Z': 10}
9 word = input().upper()
10 score = sum(x.get(letter, 0) for letter in word)
11 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 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:

$2 \leq s.length \leq 200$

*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 %)

```
1 s = input().split()
2 def pos(word):
3     return int(word[-1])
4 s.sort(key=pos)
5 o = ' '.join(word[:-1] for word in s)
6 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

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 %)

```
1 x = input()
2 y = set(x)
3 c = x.count(' ')
4 special = sum(1 for char in x if not char.isalnum() and not char.isspace())
5 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 6

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 %)

```
1 n = int(input())
2 total_marks = 0
3 max_marks = -1
4 min_marks = float('inf')
5 max_roll_no = ""
6 min_roll_no = ""
7
8 for i in range(n):
9     roll_no, marks = input().split()
10    marks = int(marks)
11    total_marks += marks
12
13    if marks > max_marks:
14        max_marks = marks
15        max_roll_no = roll_no
16
17    if marks < min_marks:
18        min_marks = marks
19        min_roll_no = roll_no
20
21 class_avg = total_marks // n
22 print(class_avg)
```

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

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 %)

```
1 w1 = input().lower()
2 w2 = input().lower()
3 word1 = ''.join(sorted(w1))
4 word2 = ''.join(sorted(w2))
5 if word1 == word2:
6     print("Those strings are anagrams.")
7 else:
8     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.



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WEEK-10-Extra ►