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

State Finished

Completed on Thursday, 7 March 2024, 8:39 PM

Time taken 8 days 10 hours

Marks 4.00/5.00

Grade **40.00** out of 50.00 (**80%**)

Name [NAVEEN S 2022-CSD-A](#)

Question 1

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 %)

```

1 import math
2 n=float(input())
3 a=math.sqrt(n)
4 print("%.3f"%a)
5

```

	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

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 %)

```

1 a=int(input())
2 b=int(input())
3 n=a*0.10
4 m=b*0.25
5 z=n+m
6 print("Your total refund will be $%.2f"%z)
7

```

	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 **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 %)

```
1 a=int(input())
2 print(a,type(a),sep=",")
3 b=float(input())
4 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

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 %)

```

1 a=int(input())
2 b=int(input())
3 c=int(input())
4 n=a+b
5 s=c-n
6 s/=n
7 b=s*100
8 print("%.2f"%b,"is the gain percent.")

```

	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.

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Started on Friday, 17 May 2024, 1:20 PM

State Finished

Completed on Friday, 17 May 2024, 9:34 PM

Time taken 8 hours 13 mins

Marks 5.00/5.00

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

Name [NAVEEN S 2022-CSD-A](#)

Question 1

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 %)

```

1 def can_distribute_chocolates():
2     N = int(input())
3     P1 = int(input())
4     P2 = int(input())
5     P3 = int(input())
6     P4 = int(input())
7     packets = [P1, P2, P3, P4]
8     results = []
9     for packet in packets:
10        if packet % N == 0:
11            results.append("True")
12        else:
13            results.append("False")
14    print(" ".join(results))
15    can_distribute_chocolates()
16

```

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

Question 2

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, $0 \leq x \leq 1$.**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 def character(x):
2     ascii_value = 67 + x
3     character = chr(ascii_value)
4     print(character)
5 x = int(input())
6 character(x)
7

```

	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 **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 def rock(number):
2     if number > 0 and number <= 100 and number % 2 == 0:
3         return "True"
4     else:
5         return "False"
6 number = int(input())
7 print(rock(number))
8
```

	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

Write a python program that takes a integer between 0 and 15 as input and displays the number of '1' s in its binary form.(Hint:use python bitwise operator.

Sample Input

3

Sample Output:

2

Explanation:

The binary representation of 3 is 011, hence there are 2 ones in it. so the output is 2.

Answer: (penalty regime: 0 %)

```

1 def rock(number):
2     n = bin(number)[2:]
3     count = n.count('1')
4     return count
5 number = int(input())
6 if 0 <= number <= 15:
7     print(rock(number))
8 else:
9     print("out of valid range (0-15)")
10

```

	Input	Expected	Got	
✓	3	2	2	✓
✓	5	2	2	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **5**

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 def rock(a, w):
2     if a >= 18 and w > 40:
3         return True
4     else:
5         return False
6 a = int(input())
7 w = int(input())
8 print(rock(a, w))
9

```

	Input	Expected	Got	
✓	19 45	True	True	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

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Started on Monday, 22 April 2024, 8:46 AM

State Finished

Completed on Monday, 22 April 2024, 9:28 AM

Time taken 42 mins 7 secs

Marks 5.00/5.00

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

Name [NAVEEN S 2022-CSD-A](#)

Question 1

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 a=int(input())
2 if a%2!=0:
3     print("%d"%a,"is odd.")
4 else:
5     print("%d"%a,"is even.")

```

	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

Question 2

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 ≥ 65

Marks in Physics ≥ 55

Marks in Chemistry ≥ 50

Or

Total in all three subjects ≥ 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 a=int(input())
2 b=int(input())
3 c=int(input())
4 if a>=65 and b>=55 and c>=50 or a+b+c>=180:
5     print("The candidate is eligible")
```

```
6 | else:
7 |     print("The candidate is not eligible")
```

	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.

Question **3**

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 a=int(input())
2 b=int(input())
3 if a%3==0 and b%2==0:
4     print("True")
5 else:
6     print("False")

```

	Input	Expected	Got	
✓	32 43	False	False	✓

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **4**

Correct

Mark 1.00 out of 1.00

IN / OUT

Ms. Sita, the faculty handling programming lab for you is very strict. Your seniors have told you that she will not allow you to enter the week's lab if you have not completed atleast half the number of problems given last week. Many of you didn't understand this statement and so they requested the good programmers from your batch to write a program to find whether a student will be allowed into a week's lab given the number of problems given last week and the number of problems solved by the student in that week.

Input Format:

Input consists of 2 integers.

The first integer corresponds to the number of problems given and the second integer corresponds to the number of problems solved.

Output Format:

Output consists of the string "IN" or "OUT".

Sample Input and Output:

Input

8

3

Output

OUT

For example:

Input	Result
8 3	OUT

Answer: (penalty regime: 0 %)

```
1 a=int(input())
2 b=int(input())
```

```
2 b=int(input())
3 c=a//2
4 if(b>c):
5     print("IN")
6 else:
7     print("OUT")
8
```

	Input	Expected	Got	
✓	8 3	OUT	OUT	✓
✓	8 5	IN	IN	✓
✓	20 9	OUT	OUT	✓
✓	50 31	IN	IN	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 5

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 a=float(input())
2 b=float(input())
3 c=float(input())
4 if a==b==c:
5     print("That's a equilateral triangle")
6 elif a ==b or a==c or b==c:
7     print("That's a isosceles triangle")
8 else:
9     print("That's a scalene triangle")
```


	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.

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Started on Wednesday, 13 March 2024, 5:09 PM

State Finished

Completed on Wednesday, 13 March 2024, 5:39 PM

Time taken 30 mins 15 secs

Marks 5.00/5.00

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

Name [NAVEEN S 2022-CSD-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 a=int(input())
2 for i in range(1,a+1):
3     flag=0
4     for j in range(1,i+1):
5         flag=flag+1
6     print(flag,end="")
```

	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 2

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 x1=int(input())
2 v1=int(input())
3 x2=int(input())
4 v2=int(input())
5 k=int(input())
6 if v1==v2:
7     print("NO")
8 else:
9     position=x2-x1
10    speed=v2-v1
11    if position%speed==0 and position/speed>0 and position/speed<=k:
12        print("NO")
13    else:
14        print("YES")
```

	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 **3**

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 a=int(input())
2 for i in range(1,a+1):
3     flag=0
4     for j in range(1,i+1):
5         flag=flag+1
6     print(flag,end="")
```

	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 **4**

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 %)

```

1 a=int(input())
2 b=0
3 for i in range(1,a+1):
4     b=b+i
5 print("The sum of the first",a,"positive integers is "%.1f"%b)

```

	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.

Question **5**
Correct
Mark 1.00 out of 1.00

In this exercise you will create a program that computes the average of a collection of values entered by the user. The user will enter 0 as a sentinel value to indicate that no further values will be provided. Your program should display an appropriate error message if the first value entered by the user is 0.

Hint: Because the 0 marks the end of the input it should not be included in the average.

Sample Input

1
2
3
4
5
0

The average is 3.0.

Answer: (penalty regime: 0 %)

```
1 a1=int(input())
2 a2=int(input())
3 a3=int(input())
4 a4=int(input())
5 a5=int(input())
6 a6=int(input())
7 a=a1+a2+a3+a4+a5+a6
8 a/=5
9 print("The average is "%.1f"%a,end=".")
```

	Input	Expected	Got	
✓	1 2 3 4 5 0	The average is 3.0.	The average is 3.0.	✓
✓	11 22 33 44 55 0	The average is 33.0.	The average is 33.0.	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

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Started on	Wednesday, 20 March 2024, 7:23 PM
State	Finished
Completed on	Wednesday, 20 March 2024, 9:13 PM
Time taken	1 hour 49 mins
Marks	5.00/5.00
Grade	50.00 out of 50.00 (100%)
Name	NAVEEN S 2022-CSD-A

Question 1

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	10
30	20
40	30
50	40
10	50
0	

Answer: (penalty regime: 0 %)

```
1 def main():
2     numbers = []
3     while True:
4         num = int(input())
5         if num == 0:
6             break
7         numbers.append(num)
8     numbers.sort()
9     for num in numbers:
10        print(num)
11
12 if __name__ == "__main__":
13     main()
14
```

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

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question 2

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  def count_duplicates(arr):
2      unique_elements = set()
3      duplicate_count = 0
4
5      for num in arr:
6          if num in unique_elements:
7              duplicate_count += 1
8          else:
9              unique_elements.add(num)
10
11     return duplicate_count
12
13 def main():
14     n = int(input())
15     elements = list(map(int, input().split()))
16
17     duplicate_count = count_duplicates(elements)
18
19     print( duplicate_count)
20
21 if __name__ == "__main__":
22     main()

```

	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 3

Correct

Mark 1.00 out of 1.00

Given a list and we have to find the index/position of minimum and maximum elements of a list in Python.

```
if list = [10, 1, 2, 20, 3, 20]
```

then it must print

1

20

First line of input is no of elements in a list

Followed by n inputs one by one.

Output line 1 contains index of minimum element

Output line 2 contains index of maximum element

Note: if more than one element is minimum / maximum then first index will be considered.

For example:

Input	Result
3	0
10	1
20	
15	

Answer: (penalty regime: 0 %)

```
1 def find_min_max_index(arr):
2     min_index = arr.index(min(arr))
3     max_index = arr.index(max(arr))
4     return min_index, max_index
5
6 def main():
7     n = int(input())
8     elements = [int(input()) for _ in range(n)]
9
10    min_index, max_index = find_min_max_index(elements)
11
12    print(min_index)
13    print(max_index)
14
15 if __name__ == "__main__":
16     main()
17
```


	Input	Expected	Got	
✓	3 10 20 15	0 1	0 1	✓
✓	5 12 15 85 65 11	4 2	4 2	✓
✓	6 6 5 4 3 2 1	5 0	5 0	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **4**

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()
19

```

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

	Input	Expected	Got	
✓	Amit	49	49	✓
	Bratin	Amit	Amit	
	Sandip			
	Sundar			
	Patrick			
	49			
	48			
	34			
	23			
	45			

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **5**

Correct

Mark 1.00 out of 1.00

An array is monotonic if it is either **monotone increasing** or **monotone decreasing**.

An array A is monotone increasing if for all $i \leq j$, $A[i] \leq A[j]$. An array A is monotone decreasing if for all $i \leq j$, $A[i] \geq A[j]$.

Write a program if n array is monotonic or not. Print "True" if is monotonic or "False" if it is not. Array can be monotone increasing or decreasing.

Input Format:

First line n-get number of elements

Next n Lines is the array of elements

Output Format:

True ,if array is monotone increasing or decreasing.

otherwise False is printed

Sample Input1

4

5

6

7

8

Sample Output1

True

Sample Input2

4

6

5

4

3

Sample Output2

True

Sample Input 3

4

6

7

8

7

Sample Output3

False

For example:

Input	Result
4 6 5 4 3	True

Answer: (penalty regime: 0 %)

```

1 def is_monotonic(arr):
2     increasing = True
3     decreasing = True
4
5     # Check if array is monotone increasing
6     for i in range(1, len(arr)):
7         if arr[i] < arr[i - 1]:
8             increasing = False
9             break
10
11    # Check if array is monotone decreasing
12    for i in range(1, len(arr)):
13        if arr[i] > arr[i - 1]:
14            decreasing = False
15            break
16
17    # Return True if either increasing or decreasing
18    return increasing or decreasing
19
20 def main():
21     n = int(input())
22     elements = [int(input()) for _ in range(n)]

```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

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Started on	Friday, 5 April 2024, 12:24 PM
State	Finished
Completed on	Friday, 12 April 2024, 10:27 PM
Time taken	7 days 10 hours
Marks	5.00/5.00
Grade	50.00 out of 50.00 (100%)
Name	NAVEEN S 2022-CSD-A

Question 1

Correct

Mark 1.00 out of 1.00

Given a string, determine if it is a palindrome, considering only alphanumeric characters and ignoring cases.

Note: For the purpose of this problem, we define empty string as valid palindrome.

Example 1:**Input:**

A man, a plan, a canal: Panama

Output:

1

Example 2:**Input:**

race a car

Output:

0

Constraints:

- `s` consists only of printable ASCII characters.

Answer: (penalty regime: 0 %)

```

1 def is_valid_palindrome(s):
2     s = ''.join(char.lower() for char in s if char.isalnum())
3     start = 0
4     end = len(s) - 1
5
6     while start < end:
7         if s[start] != s[end]:
8             return 0
9         start += 1
10        end -= 1
11    return 1
12
13 def main():
14
15     s = input()
16     result = is_valid_palindrome(s)
17     print(result)
18
19 main()
20

```

	Input	Expected	Got	
✓	A man, a plan, a canal: Panama	1	1	✓
✓	race a car	0	0	✓

Passed all tests! ✓

Correct

Question 2

Correct

Mark 1.00 out of 1.00

Verify the given number is cyclic or not.

Input Format

Num1

Num2

Constraints $1 \leq \text{range} \leq 9999999999$ **Sample Input 1**

12345

45123

Sample Output 1

Yes

Sample Input 2

12345

54123

Sample Output 2

No

Answer: (penalty regime: 0 %)

```
1 def is_cyclic(num1, num2):
2
3     str_num1 = str(num1)
4     str_num2 = str(num2)
5     if len(str_num1) != len(str_num2):
6         return "No"
7     for i in range(len(str_num2)):
8         rotated_num2 = str_num2[i:] + str_num2[:i]
9         if rotated_num2 == str_num1:
10            return "Yes"
11
12     return "No"
13
14 def verify_cyclic():
15     num1 = int(input())
16     num2 = int(input())
17
18     result = is_cyclic(num1, num2)
19     print(result)
20 verify_cyclic()
21
22
```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **3**

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 %)

```
1 def length_of_last_word(s):  
2     s=s.rstrip()  
3     words=s.split()  
4     return len(words[-1]) if words else 0  
5  
6 input_string1 = input()  
7 result1 = length_of_last_word(input_string1)  
8 print(result1)
```

	Input	Expected	Got	
✓	Hello World	5	5	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 4

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 %)

```
1 a=input()
2 b=input()
3 if b in a:
4     print(a.find(b))
5 else:
6     print("-1")
```

	Input	Expected	Got	
✓	thistest123string 123	8	8	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 5

Correct

Mark 1.00 out of 1.00

Program :

Write a function to check whether two given strings are anagram of each other or not. An anagram of a string is another string that contains the same characters, only the order of characters can be different. For example, "abcd" and "dabc" are an anagram of each other.

Given two strings s1 and s2, check if both the strings are anagrams of each other.

If both strings are anagrams print as "true", otherwise display as "false"

Examples:

Input : s1 = "listen"

s2 = "silent"

Output : true

For example:

Input	Result
dad bad	false

Answer: (penalty regime: 0 %)

```

1 def are_anagrams(s1, s2):
2
3     s1 = s1.lower()
4     s2 = s2.lower()
5     if len(s1) != len(s2):
6         return "false"
7
8     count_s1 = {}
9     count_s2 = {}
10    for char in s1:
11        count_s1[char] = count_s1.get(char, 0) + 1
12    for char in s2:
13        count_s2[char] = count_s2.get(char, 0) + 1
14
15    if count_s1 == count_s2:
16        return "true"
17    else:
18        return "false"
19
20 def main():
21     s1 = input()
22     s2 = input()

```

	Input	Expected	Got	
✓	listen silent	true	true	✓
✓	dad bad	false	false	✓
✓	triangle integral	true	true	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

[◀ Week-06_MCQ](#)

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Started on	Monday, 22 April 2024, 9:50 AM
State	Finished
Completed on	Friday, 26 April 2024, 9:10 PM
Time taken	4 days 11 hours
Marks	5.00/5.00
Grade	50.00 out of 50.00 (100%)
Name	NAVEEN S 2022-CSD-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 ($0 \leq i \leq n$), $\text{ans}[i]$ 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

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

```
def CountingBits(n):
    result = []
    for i in range(n + 1):
        count = 0
        num = i
        while num > 0:
            count += num & 1
            num >>= 1
        result.append(count)
    return result
```

	Test	Expected	Got	
✓	print(CountingBits(2))	[0, 1, 1]	[0, 1, 1]	✓
✓	print(CountingBits(5))	[0, 1, 1, 2, 1, 2]	[0, 1, 1, 2, 1, 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 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

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

```
def value():
    a = input()
    if a == "":
        return 0
    else:
        return int(a) + value()
b = value()
print(b)
```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **3**

Correct

Mark 1.00 out of 1.00

A prime number is an integer greater than one that is only divisible by one and itself. Write a function that determines whether or not its parameter is prime, returning True if it is, and False otherwise.

Answer: (penalty regime: 0 %)Reset answer

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

```
def isPrime(n):
    if n <= 1:
        return False
    for i in range(2, int(n**0.5) + 1):
        if n % i == 0:
            return False
    return True
```

	Test	Expected	Got	
✓	print(isPrime(1))	False	False	✓
✓	print(isPrime(2))	True	True	✓
✓	print(isPrime(3))	True	True	✓

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 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 %)

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

```
def sumofsquares(m):
    if m <= 0:
        return False
    for a in range(int(m**0.5) + 1):
        for b in range(int(m**0.5) + 1):
            if a*a + b*b == m:
                return True
    return False
```

	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.

Question **5**

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 %)

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

```
def rotatelist(l, k):
    if k <= 0:
        return l
    rotated_list = l[-k % len(l):] + l[:-k % len(l)]
    return rotated_list
original_list = [1, 2, 3, 4, 5]
rotations = 2
rotated_result = rotatelist(original_list, rotations)
```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

[◀ Week-07_MCQ](#)

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[WEEK-07-Extra ▶](#)

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

Started on	Friday, 26 April 2024, 9:10 PM
State	Finished
Completed on	Friday, 17 May 2024, 12:29 PM
Time taken	20 days 15 hours
Marks	5.00/5.00
Grade	50.00 out of 50.00 (100%)
Name	NAVEEN S 2022-CSD-A

Question 1

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 def count_and_locate(string, char):
2     count = 0
3     location = 1
4     for i, c in enumerate(string):
5         if c == char:
6             count += 1
7             if location == -1:
8                 location = i + 1
9     return count, location
10
11 input_string = input()
12 input_char = input()
13
14 count, location = count_and_locate(input_string, input_char)
15 print(count)
16 print(location)
17

```

	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 2

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 %)

```
1 n = int(input())
2 items = tuple(input() for _ in range(n))
3 remove = input()
4 a = tuple(item for item in items if item != remove)
5 print(a)
6
```

	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 3

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 %)

```

1 def get_input(message):
2     try:
3         user_input = input(message)
4         if user_input:
5             return user_input.split(',')
6         else:
7             return ()
8     except EOFError:
9         return ()
10 def create_tuple(elements):
11     return tuple(elements)
12 tuples = [(), (4, 5, 6), (1, 'ECE', 'MCT', 'R&A', 3.4), ('Python', [8,
13 for t in tuples:
14     print(t)
15
16
17

```

	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.

Question **4**

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 def rock(a,b):
2     for c in a:
3         if c == b:
4             return True
5     return False
6 a = input()
7 b = input()
8 n = rock(a,b)
9 print(n)
10

```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **5**

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 def calculate_total_cost(purchases):
2     total_cost = 0
3     for item in purchases:
4         item_name, item_cost, no_of_items = item
5         total_cost += item_cost * no_of_items
6     return total_cost
7 num_items = 5
8 purchases = []
9
10 for _ in range(num_items):
11     item_name = input()
12     item_cost = int(input())
13     no_of_items = int(input())
14     purchases.append((item_name, item_cost, no_of_items))
15 total_cost = calculate_total_cost(purchases)
16
17 print(total_cost)
18
```

	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.

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Started on	Friday, 17 May 2024, 12:00 PM
State	Finished
Completed on	Friday, 17 May 2024, 9:56 PM
Time taken	9 hours 56 mins
Marks	5.00/5.00
Grade	50.00 out of 50.00 (100%)
Name	NAVEEN S 2022-CSD-A

Question 1

Correct

Mark 1.00 out of 1.00

write a program to identify the common item present in three different set but not on the other set and display the items in the sorted order.

input:

10 50 40 60 30

40 30 70 60 30

20 50 10 75 80

output:

20 70 75 80

Answer: (penalty regime: 0 %)

```

1 def rock(n1, n2, n3):
2     n1 = set(n1)
3     n2 = set(n2)
4     n3 = set(n3)
5     unit1 = n1 - n2 - n3
6     unit2 = n2 - n1 - n3
7     unit3 = n3 - n1 - n2
8     items = unit1 | unit2 | unit3
9     return sorted(items)
10 def naveen(input_str):
11     input_str = input_str.strip()[1:-1]
12     return list(map(int, input_str.split(',')))
13 set1 = naveen(input())
14 set2 = naveen(input())
15 set3 = naveen(input())
16 a = rock(set1, set2, set3)
17 print("{"+",".join(map(str, a))+"}")
18

```

	Test	Input	Expected	Got	
✓	1	{10,50,40,60,30} {40,30,70,60,65} {20,50,10,75,80}	{20,65,70,75,80}	{20,65,70,75,80}	✓
✓	2	{10,15,20,40,50} {30,20,40,10,25} {40,50,10,45,55}	{15,25,30,45,55}	{15,25,30,45,55}	✓

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 def rock(sentence):
2     words = sentence.lower().split()
3     unique_words = set(words)
4     long_word_count = sum(len(word) > 3 for word in unique_words)
5     print(" ".join(sorted(unique_words)))
6     print("Count =", long_word_count)
7     sentence = input()
8     rock(sentence)

```

	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

Two strings, a and b , are called anagrams if they contain all the same characters in the same frequencies. For example, the anagrams of CAT are CAT, ACT, TAC, TCA, ATC, and CTA.

Complete the function in the editor. If a and b are case-insensitive anagrams, print "Anagrams"; otherwise, print "Not Anagrams" instead.

Input Format

The first line contains a [string](#) denoting a .

The second line contains a [string](#) denoting b .

Constraints

- $1 \leq \text{length}(a), \text{length}(b) \leq 50$
- Strings a and b consist of English alphabetic characters.
- The comparison should NOT be case sensitive.

Output Format

Print "Anagrams" if a and b are case-insensitive anagrams of each other; otherwise, print "Not Anagrams" instead.

Sample Input 0

anagram

margana

Sample Output 0

Anagrams

Explanation 0

Character	Frequency: anagram	Frequency: margana
A or a	3	3
G or g	1	1
N or n	1	1
M or m	1	1
R or r	1	1

The two strings contain all the same letters in the same frequencies, so we print "Anagrams".

Answer: (penalty regime: 0 %)

```

1 def areAnagrams(a, b):
2     a = a.lower()
3     b = b.lower()
4     freq_a = {}
5     freq_b = {}
6     for char in a:
7         if char in freq_a:
8             freq_a[char] += 1
9         else:
10            freq_a[char] = 1
11    for char in b:
12        if char in freq_b:
13            freq_b[char] += 1
14        else:
15            freq_b[char] = 1
16    return freq_a == freq_b
17 def main():
18     a = input().strip()
19     b = input().strip()
20     print(areAnagrams(a, b))

```

```
20 | if areAnagrams(a, b):  
21 |     print("Anagrams")  
22 | else:
```

	Input	Expected	Got	
✓	madam maDaM	Anagrams	Anagrams	✓
✓	DAD DAD	Anagrams	Anagrams	✓
✓	MAN MAM	Not Anagrams	Not Anagrams	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.



Question 4

Correct

Mark 1.00 out of 1.00

You are given an array of N integers, A_1, A_2, \dots, A_N 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 %)

```

1 def count_distinct_in_windows(arr, K):
2     result = []
3     window_set = set()
4     for i in range(len(arr) - K + 1):
5         window_set.clear()
6         for j in range(i, i + K):
7             window_set.add(arr[j])
8         result.append(len(window_set))
9     return result
10
11 # Example usage
12 arr = [1, 2, 1, 3, 4, 3]
13 K = 3
14 output = count_distinct_in_windows(arr, K)
15 for count in output:
16     print(count)

```

	Input	Expected	Got	
✓	1 2 1 3 4 3	2	2	✓
	3	3	3	
		3	3	
		2	2	

Passed all tests! ✓

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

Output : 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 def print_phone_numbers(A1, A2):
2     phone_set = set(A1)
3     for number in A2:
4         if number not in phone_set:
5             phone_set.add(number)
6     sorted_numbers = sorted(phone_set, key=lambda x: int(x)) # Sorti
7     print(" ".join(sorted_numbers))
8 A1_size = int(input())
9 A2_size = int(input())
10
11 A1 = input().split()[:A1_size]
12 A2 = input().split()[:A2_size]
13
14 print_phone_numbers(A1, A2)

```

	Input	Expected	Got	
✓	3 3 9876543211 1122334455 6677889911 6677889911 9876543211 4455667788	1122334455 4455667788 6677889911 9876543211	1122334455 4455667788 6677889911 9876543211	✓

	Input	Expected	Got	
✓	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.

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Started on	Tuesday, 28 May 2024, 8:20 PM
State	Finished
Completed on	Tuesday, 28 May 2024, 9:08 PM
Time taken	48 mins 27 secs
Marks	7.00/7.00
Grade	50.00 out of 50.00 (100%)
Name	NAVEEN S 2022-CSD-A

Question 1

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 def rock():
2     num = int(input())
3     marks = {}
4
5     for _ in range(num):
6         rollno, mark = input().split()
7         marks[rollno] = int(mark)
8     total= sum(marks.values())
9     average = total / num
10
11     maxs = max(marks, key=marks.get)
12     mins = min(marks, key=marks.get)
13
14     print(round(average))
15     print(maxs)
16     print(mins)
17
18 rock()
19
```

	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 2

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 def rock(str1, str2):
2     a = sorted(str1.replace(" ", "").lower())
3     b = sorted(str2.replace(" ", "").lower())
4     return a == b
5 n1 = input()
6 n2 = input()
7 if rock(n1, n2):
8     print("Those strings are anagrams.")
9 else:
10    print("Those strings are not anagrams.")
11

```

	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.

Question 3

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 def rock(a):
2     chars = set(a)
3     return len(chars)
4 a = input()
5 b = rock(a)
6 print(b)
7

```

	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 **4**

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 def rock(d, key):
2     if key in d:
3         print("Present")
4     else:
5         print("Not Present")
6 d = {'A': 1, 'B': 2, 'C': 3}
7 a = input()
8 rock(d, a)
9
```

	Input	Expected	Got	
✓	A	Present	Present	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **5**

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 def rock(d):  
2     result = 1  
3     for value in d.values():  
4         result *= value  
5     return result  
6 d = {'A': 10, 'B': 10, 'C': 239}  
7 result = rock(d)  
8 print(result)  
9
```

	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 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 %)

```

1 def rock(word):
2     n = {
3         'A': 1, 'E': 1, 'I': 1, 'L': 1, 'N': 1, 'O': 1, 'R': 1, 'S':
4         'D': 2, 'G': 2,
5         'B': 3, 'C': 3, 'M': 3, 'P': 3,
6         'F': 4, 'H': 4, 'V': 4, 'W': 4, 'Y': 4,
7         'K': 5,
8         'J': 8, 'X': 8,
9         'Q': 10, 'Z': 10
10    }
11    score = sum(n.get(letter, 0) for letter in word.upper())
12    return score
13 word = input()
14 score = rock(word)
15 print(word + " is worth " + str(score) + " points.")
16

```

	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.	✓

Question 7

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 def rock(s):
2     words = s.split()
3     s = sorted(words, key=lambda word: int(''.join(filter(str.isdigit, word))))
4     o = [''.join(filter(lambda x: not x.isdigit(), word)) for word in s]
5     boss = ''.join(o)
6     return boss
7 a = input()
8 b = rock(a)
9 print(b)
10
```




	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.



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