

RAJALAKSHMI ENGINEERING COLLEGE
RAJALAKSHMI NAGAR, THANDALAM – 602 105



RAJALAKSHMI
ENGINEERING COLLEGE

An AUTONOMOUS Institution
Affiliated to ANNA UNIVERSITY, Chennai

Laboratory Record Notebook

Name :

Year / Branch / Section :

Register No. :

College Roll No. :

Semester :

Academic Year :



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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: _____

[illegible]

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/ [Week-1 CODING](#)

Started on Thursday, 29 February 2024, 10:17 PM

State Finished

Completed on Thursday, 29 February 2024, 10:37 PM

Time taken 19 mins 50 secs

Marks 5.00/5.00

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

Name [JAYASABHAREESH N 2022-CSD-A](#)

Question 1

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
4 print("Your total refund will be $%.2f"%(a * 0.10 + b * 0.25))

```

	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.



Question 2

Correct

Mark 1.00 out of 1.00

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

Hint:

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

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

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

Sample Input:

450

Sample Output:

weekdays 10.38

weekend 0.38

For example:

Input	Result
450	weekdays 10.38 weekend 0.38

Answer: (penalty regime: 0 %)

```
1 | n = int(input())
2 | hours = abs((n - 500)/130)
3 | print("weekdays %.2f"%(10 + hours))
4 | print("weekend %.2f"%(hours))
5 |
```

	Input	Expected	Got	
✓	450	weekdays 10.38 weekend 0.38	weekdays 10.38 weekend 0.38	✓
✓	500	weekdays 10.00 weekend 0.00	weekdays 10.00 weekend 0.00	✓
✓	10000	weekdays 83.08 weekend 73.08	weekdays 83.08 weekend 73.08	✓

	Input	Expected	Got	
✓	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 **3**

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 x = int(input())
2 y = int(input())
3 z = int(input())
4
5 percent = ((z - (x + y))/(x + y)) * 100
6 print("%.2f is the gain percent."%(percent))

```

	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.	✓
✓	5000 0 7000	40.00 is the gain percent.	40.00 is the gain percent.	✓

	Input	Expected	Got	
✓	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 **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 x = int(input())
2 print("%d,%s"%(x,type(x)))
3 x = float(input())
4 print("%.11f,%s"%(x,type(x)))
5
6

```

	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

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
3 n = float(input())
4
5 print("{:.3f}".format(math.sqrt(n)))
```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

[◀ Week-1_MCQ](#)

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Started on Tuesday, 5 March 2024, 8:25 AM

State Finished

Completed on Tuesday, 5 March 2024, 9:22 AM

Time taken 57 mins 25 secs

Marks 5.00/5.00

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

Name [JAYASABHAREESH N 2022-CSD-A](#)

Question 1

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 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	✓
✓	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 **2**

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 num = int (input())
2 count = 0;
3 while num:
4     count +=num &1
5     num>>=1
6 print(count)
```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **3**

Correct

Mark 1.00 out of 1.00

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

Sample Input

10

20

Sample Output

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

For example:

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

Answer: (penalty regime: 0 %)

```

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

```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **4**

Correct

Mark 1.00 out of 1.00

Pretend that you have just opened a new savings account that earns 4 percent interest per year. The interest that you earn is paid at the end of the year, and is added to the balance of the savings account. Write a program that begins by reading the amount of money deposited into the account from the user. Then your program should compute and display the amount in the savings account after 1, 2, and 3 years. Display each amount so that it is rounded to 2 decimal places.

Sample Input:

10000

Sample Output:

Balance as of end of Year 1: \$10400.00.

Balance as of end of Year 2: \$10816.00.

Balance as of end of Year 3: \$11248.64.

Answer: (penalty regime: 0 %)

```

1 a=int(input())
2 b=a+ (a*0.04)
3 print("Balance as of end of Year 1: $%.2f"%(b))
4 c=b+(b*0.04)
5 print("Balance as of end of Year 2: $%.2f"%(c))
6 d=c+(c*0.04)
7 print("Balance as of end of Year 3: $%.2f"%(d))

```

	Input	Expected	Got	
✓	10000	Balance as of end of Year 1: \$10400.00. Balance as of end of Year 2: \$10816.00. Balance as of end of Year 3: \$11248.64.	Balance as of end of Year 1: \$10400.00. Balance as of end of Year 2: \$10816.00. Balance as of end of Year 3: \$11248.64.	✓
✓	20000	Balance as of end of Year 1: \$20800.00. Balance as of end of Year 2: \$21632.00. Balance as of end of Year 3: \$22497.28.	Balance as of end of Year 1: \$20800.00. Balance as of end of Year 2: \$21632.00. Balance as of end of Year 3: \$22497.28.	✓

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 a = int(input())
2 b = int(input())
3 print((a>=18) and (b>40))
```

	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 Sunday, 21 April 2024, 10:24 PM

State Finished

Completed on Sunday, 21 April 2024, 10:31 PM

Time taken 6 mins 53 secs

Marks 5.00/5.00

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

Name [JAYASABHAREESH N 2022-CSD-A](#)

Question **1**

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

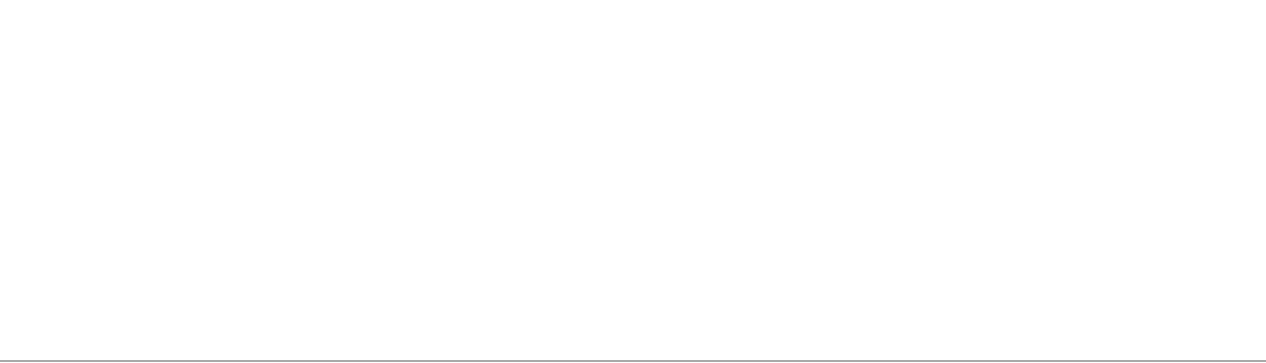
OUT

For example:

Input	Result
8 3	OUT

Answer: (penalty regime: 0 %)

```
1 a=int(input())
2 b=int(input())
3 if b<=a/2:
4     print("OUT")
5 else:
6     print("IN")
```



	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 **2**

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 n = int(input())
2 if(n % 2 == 0):
3     print("%d is even"%(n))
4 else:
5     print("%d is odd"%(n))
```

	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 3

Correct

Mark 1.00 out of 1.00

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

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

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

Sample Test Cases

Test Case 1

Input

50

Output

100.00

Test Case 2

Input

300

Output

517.50

For example:

Input	Result
100.00	120.00

Answer: (penalty regime: 0 %)

```

1 units=float(input())
2 sum=0
3 if int(units)<199:
4     sum+=units*1.20
5 elif units>=200 and units<400:
6     sum+=units*1.50
7
8 elif units>=400 and units<600:
9     sum+=units*1.80
10
11 elif units>=600:
12     sum+=units*2.00
13
14 if sum>400:
15     sum=sum+(sum*0.15)
16     print("{0:.2f}".format(float(sum)))
17
18 elif sum<100:
19     print("100.00")
20 else:
21     print("{0:.2f}".format(float(sum)))

```

	Input	Expected	Got	
✓	50	100.00	100.00	✓

	Input	Expected	Got	
✓	100.00	120.00	120.00	✓
✓	500	1035.00	1035.00	✓
✓	700	1610.00	1610.00	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **4**

Correct

Mark 1.00 out of 1.00

Write a Python program that accepts three parameters. The first parameter is an integer. The second is one of the following mathematical operators: +, -, /, or *. The third parameter will also be an integer.

The function should perform a calculation and return the results. For example, if the function is passed 6 and 4, it should return 24.

Sample Input Format:

11

+

14

Sample Output Format:

25

Answer: (penalty regime: 0 %)

```

1 a = int(input())
2 s = input()
3 b = int(input())
4 if(s == '+'):
5     print(a + b)
6 elif s == '-':
7     print(a - b)
8 elif s == '*':
9     print(a * b)
10 else:
11     print(a / b)

```

	Input	Expected	Got	
✓	11 + 14	25	25	✓
✓	45 - 50	-5	-5	✓
✓	12 * 100	1200	1200	✓
✓	18 / 2	9.0	9.0	✓

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 = int(input())
2 b = int(input())
3 c = int(input())
4
5 if(a == b == c):
6     print("That's a equilateral triangle")
7 elif(a == b or b== c or c == a):
8     print("That's a isosceles triangle")
9 else:
10    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 Friday, 22 March 2024, 10:30 PM

State Finished

Completed on Friday, 22 March 2024, 10:57 PM

Time taken 27 mins 4 secs

Marks 5.00/5.00

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

Name [JAYASABHAREESH N 2022-CSD-A](#)

Question 1

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 l = []
2
3 n = 1
4
5 while(n != 0):
6     n = int(input())
7     if(n != 0):
8         l.append(n)
9
10 sum = 0
11
12 for i in l:
13     sum = sum + i
14
15 avg = sum // len(l)
16
17 print("The average is %.1f"%(avg))

```

	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.

Question **2**

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

For example:

Input	Result
2277	Stable Number

Answer: (penalty regime: 0 %)

```

1 l = []
2
3 n = int(input())
4
5 n = str(n)
6
7 for i in n:
8     l.append(n.count(i))
9
10 l.sort()
11
12 if(l[0] == l[len(l) - 1]):
13     print("Stable Number")
14 else:
15     print("Unstable Number")

```

	Input	Expected	Got	
✓	9988	Stable Number	Stable Number	✓
✓	2277	Stable Number	Stable Number	✓
✓	1233	Unstable Number	Unstable Number	✓

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 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 n = int(input())
2
3 sum = (n * (n + 1))/2
4
5 print("The sum of the first %d positive integers is %.1f"%(n,sum))

```

	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 **4**

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
3 def GenerateOne(n):
4     s = ""
5     for i in range(n):
6         s += '1'
7     return int(s)
8 sum = 0
9 for i in range(1, n + 1):
10     sum += GenerateOne(i)
11 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 5

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 n = int(input())
2 temp = n
3 def Fact(n):
4     if n == 0 or n == 1:
5         return 1
6     for i in range(1,n):
7         n = n * i
8     return n
9 ans = 0
10 while temp > 0:
11     r = Fact(temp % 10)
12     ans += r
13     temp = temp // 10
14 if ans == n:
15     print("Yes")
16 else:
17     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.

◀ Week-04_MCQ

Jump to...

WEEK-04-Extra ►

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

Started on Friday, 5 April 2024, 12:50 PM

State Finished

Completed on Saturday, 20 April 2024, 3:44 PM

Time taken 15 days 2 hours

Marks 5.00/5.00

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

Name [JAYASABHAREESH N 2022-CSD-A](#)

Question 1

Correct

Mark 1.00 out of 1.00

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

Input :

1 2 1 3 4 3

3

Output :

2

3

3

2

Explanation

All windows of size K are

[1, 2, 1]

[2, 1, 3]

[1, 3, 4]

[3, 4, 3]

Answer: (penalty regime: 0 %)

```
1 def distinct_numbers_in_windows(arr, k):
2     n = len(arr)
3     result = []
4
5     for i in range(n - k + 1):
6         window = arr[i:i+k]
7         distinct_count = len(set(window))
8         result.append(distinct_count)
9
10    return result
11
12 arr = [1, 2, 1, 3, 4, 3]
13 k = 3
14 output = distinct_numbers_in_windows(arr, k)
15 for count in output:
16     print(count)
```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 2

Correct

Mark 1.00 out of 1.00

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  n=1
2  l = []
3
4  while n != -99:
5      x = int(input())
6      if(x == -99):
7          break
8      l.append(x)
9
10 l.sort()
11
12 for i in range(len(l) - 1):
13     if(l[i] < 0 and l[i + 1] < 0):
14         if(abs(l[i]) > abs(l[i + 1])):
15             l[i],l[i + 1] = l[i + 1],l[i]
16
17 for i in l:
18     print(i)
19
20

```

	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

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

Sample Input

33
11
22
55
44
0

Sample Output

55
44
33
22
11

For example:

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

Answer: (penalty regime: 0 %)

```
1 n = 1
2 l = []
3
4 while n != 0:
5     x = int(input())
6     if(x == 0):
7         break
8     l.append(x)
9
10 def Reverse(l):
11     for i in range(len(l)):
12         for j in range(len(l) - i - 1):
13             if(l[j] <= l[j + 1]):
14                 temp = l[j]
15                 l[j] = l[j + 1]
16                 l[j + 1] = temp
17
18 Reverse(l)
19
20 for j in l:
21     print(j)
22
```

	Input	Expected	Got	
✓	33	55	55	✓
	11	44	44	
	22	33	33	
	55	22	22	
	44	11	11	
	0			

	Input	Expected	Got	
✓	50 40 20 10 30 0	50 40 30 20 10	50 40 30 20 10	✓
✓	1 2 3 4 5 6 7 8 9 0	9 8 7 6 5 4 3 2 1	9 8 7 6 5 4 3 2 1	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 4

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 n = int(input())
2 l = []
3
4 for i in range(n):
5     x = int(input())
6     l.append(x)
7
8
9 def CheckAsc(l):
10     if(l[0] == 3):

```

```
11         return False
12     for i in range(len(l) - 1):      #0 1 2 3
13         if l[i] <= l[i + 1]:
14             pass
15         else:
16             return False
17     return True
18
19 def CheckDesc(l):
20     for i in range(len(l) - 1):
21         if(l[i] >= l[ i + 1]):
22             pass
```

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

Question **5**

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_max_min_index(numbers):
2     max_index = numbers.index(max(numbers))
3     min_index = numbers.index(min(numbers))
4     return max_index, min_index
5 numbers = []
6 n = int(input())
7 for i in range(n):
8     num = float(input())
9     numbers.append(num)
10
11 max_index, min_index = find_max_min_index(numbers)
12
13 print(min_index)
14 print(max_index)
```

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

	Input	Expected	Got	
✓	6	5	5	✓
	6	0	0	
	5			
	4			
	3			
	2			
	1			

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

◀ Week-05_MCQ

Jump to...

WEEK-05-Extra ▶

Started on

Friday, 5 April 2024, 12:25 PM

State

Finished

Completed on

Thursday, 11 April 2024, 1:49 PM

Time taken

6 days 1 hour

Marks

5.00/5.00

Grade

50.00 out of 50.00 (100%)

Name

[JAYASABHAREESH N 2022-CSD-A](#)

Question

1

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 s = input()
2
3 words = s.split()
4
5 Count = []
6
7 for i in words:
8     Count.append(len(i))
9
10 print(max(Count))
```

	Input	Expected	Got	
✓	Hello World	5	5	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **2**

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 def is_cyclic(num1, num2):
2
3     str_num1 = str(num1)
4     str_num2 = str(num2)
5
6
7     if len(str_num1) != len(str_num2):
8         return "No"
9
10
11     doubled_num1 = str_num1 + str_num1
12
13
14     if doubled_num1.find(str_num2) != -1:
15         return "Yes"
16     else:
17         return "No"
18
19 num1 = input()
20 num2 = input()
21
22 result = is_cyclic(num1, num2)

```

	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

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 s = input()
2
3 l = ["break", "case", "if", "True", "False", "continue", "defer", "for", "func", "else", "goto", "range", "return", "struct"]
4
5 if s in l:
6     print("%s is a keyword"%(s))
7 else:
8     print("%s is not a keyword"%(s))
9
10

```

	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 **4**

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 s = input()
2 if(s.isupper()):
3     print(s.lower())
4 else:
5     print(s.upper())
```

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

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 get a string from a given string where all occurrences of the first character have been changed to '&', except the first character of the string.

Sample input:

reverse

output

reve&se

For example:

Input	Result
reverse	reve&se

Answer: (penalty regime: 0 %)

```
1 s = input()
2
3 letter = s[0]
4
5 s = s.replace(letter, "&")
6
7 s = letter + s[1:]
8
9 print(s)
```

	Input	Expected	Got	
✓	reverse	reve&se	reve&se	✓
✓	samples	sample&	sample&	✓
✓	abcdabcd	abcd&bcd	abcd&bcd	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

[◀ Week-06_MCQ](#)

Jump to...

[WEEK-06-Extra ▶](#)

[Dashboard](#) / [My courses](#) / [CD19411-PPD-2022](#) / [WEEK 07-Functions](#) / [WEEK-07 CODING](#)

Started on Thursday, 9 May 2024, 6:40 PM

State Finished

Completed on Thursday, 9 May 2024, 9:17 PM

Time taken 2 hours 37 mins

Marks 5.00/5.00

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

Name [JAYASABHAREESH N 2022-CSD-A](#)

Question 1

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     for num in range(m//2):
9         res=issquare(num) and issquare(m-num)
10        if res==True:
11            break
12        return res
```

	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 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 Reverse(l, start , end):
2     while start < end:
3         temp = l[start]
4         l[start] = l[end]
5         l[end] = temp
6         start += 1
7         end -= 1
8
9 def rotatelist(l,k):
10     k = k % len(l)
11     Reverse(l , 0 , len(l) - 1)
12     Reverse(l , 0 , k - 1)
13     Reverse(l , k, len(l) - 1)
14     return l
15
16
```

	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.

Question 3

Correct

Mark 1.00 out of 1.00

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

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

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

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

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

```
False
```

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

```
True
```

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

```
False
```

Answer: (penalty regime: 0 %)

Reset answer

```
1 def wellbracketed(s):
2     depth = 0
3     for char in s:
4         if char == '(':
5             depth += 1
6         elif char == ')':
7             depth -= 1
8         if depth < 0:
9             return False
10    return depth == 0
11
```

	Test	Expected	Got	
✓	<code>print(wellbracketed("22"))</code>	False	False	✓
✓	<code>print(wellbracketed("(a+b)(a-b)"))</code>	True	True	✓
✓	<code>print(wellbracketed("(a(b+c)-d)((e+f)"))</code>	False	False	✓

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     # Read a value from the user
3     line = input()
4
5     # Base case: The user entered a blank line so the total is 0
6     if line == "":
7         return 0
8     else:
9         # Recursive case: Convert the current line to a number and use recursion to read the
10         # subsequent lines
11         number = int(line)
12         return number + readAndTotal()
13
14 # Read the values from the user and compute the total
15 total = readAndTotal()
16
17 # Display the total
18 print(total)
19
20

```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 5

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 euclidean_algorithm(a, b):
2     while b != 0:
3         a, b = b, a % b
4     return a
5
6 # Example usage:
7 a = int(input())
8 b = int(input())
9 gcd = euclidean_algorithm(a, b)
10 print(gcd)
11

```

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

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, 12:16 PM
State	Finished
Completed on	Thursday, 9 May 2024, 12:32 PM
Time taken	6 days
Marks	5.00/5.00
Grade	50.00 out of 50.00 (100%)
Name	JAYASABHAREESH N 2022-CSD-A

Question 1

Correct

Mark 1.00 out of 1.00

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

sample input:

3 : no of elements

REC

RIT

RSB

REC: ELEMENT TO CHECK

SAMPLE OUTPUT:

True

Answer: (penalty regime: 0 %)

```

1 n=int(input())
2 t=()
3 for i in range(n):
4     t=t+((input()),)
5 e=input()
6
7 if e in t:
8     print("True")
9 else:
10    print("False")

```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **2**

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 s = input()
2 c = input()
3
4 print(s.count(c))
5 print(s.index(c))
```

	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 **3**

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 s = input()
2 c = input()
3
4 print(c in s)
```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **4**

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 cst=0
2 for i in range(5):
3     n=input()
4     c=int(input())
5     n=int(input())
6     cst=cst+(c*n)
7 print(cst)
```

	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 5

Correct

Mark 1.00 out of 1.00

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

Sample Input:

4
10
30
40
60

Sample Output:

a=10
b=30
c=40
d=60

Answer: (penalty regime: 0 %)

```
1 n = int(input())
2 l = []
3
4 for i in range(n):
5     x =int(input())
6     l.append(x)
7
8 t = tuple(l)
9 c = 97
10 for i in t:
11     print("%s=%d"%(chr(c),i))
12     c += 1
```

	Input	Expected	Got	
✓	4 10 30 40 60	a=10 b=30 c=40 d=60	a=10 b=30 c=40 d=60	✓
✓	9 15 60 75 85 90 70 35 25 45	a=15 b=60 c=75 d=85 e=90 f=70 g=35 h=25 i=45	a=15 b=60 c=75 d=85 e=90 f=70 g=35 h=25 i=45	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

◀ [Week-08_MCQ](#)

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[Week-09_MCQ](#) ▶

[Dashboard](#) / [My courses](#) / [CD19411-PPD-2022](#) / [WEEK 09-Set](#) / [WEEK-09 CODING](#)

Started on Thursday, 9 May 2024, 12:36 PM

State Finished

Completed on Thursday, 9 May 2024, 6:56 PM

Time taken 6 hours 20 mins

Marks 5.00/5.00

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

Name [JAYASABHAREESH N 2022-CSD-A](#)

Question 1

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 s1 = input()
2 s2 = input()
3 s3 = input()
4
5 l1 = s1.split()
6 l2 = s2.split()
7
8 if s3 in l1 and l2:
9     print('yes')
10    print('set3 is subset of set1 and set2')
11 else:
12    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 2

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 are_anagrams(a, b):
2     # Convert strings to lowercase
3     a = a.lower()
4     b = b.lower()
5
6     # Check if the sorted lists of characters are equal
7     if sorted(a) == sorted(b):
8         return "Anagrams"
9     else:
10        return "Not Anagrams"
11
12 # Sample Test Case
13 a = input().strip()
14 b = input().strip()
15
16 result = are_anagrams(a, b)
17 print(result)
18

```

	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 **3**

Correct

Mark 1.00 out of 1.00

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

Input :

1 2 1 3 4 3

3

Output :

2

3

3

2

Explanation

All windows of size K are

[1, 2, 1]

[2, 1, 3]

[1, 3, 4]

[3, 4, 3]

Answer: (penalty regime: 0 %)

```
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)
17
```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **4**

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 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)) # Sorting the phone numbers
7     print(" ".join(sorted_numbers))
8
9 # Sample Test Case
10 A1_size = int(input())
11 A2_size = int(input())
12
13 A1 = input().split()[:A1_size]
14 A2 = input().split()[:A2_size]
15
16 print_phone_numbers(A1, A2)
17

```

	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.

Question **5**

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 process_sentence(sentence):
2     # Split the sentence into words
3     words = sentence.split()
4
5     # Remove duplicate words and sort them
6     unique_words = sorted(set(words))
7
8     # Print unique words in sorted order
9     print(" ".join(unique_words))
10
11    # Count words with length greater than 3
12    count = sum(1 for word in unique_words if len(word) > 3)
13    print("Count =", count)
14
15    # Sample Test Case
16    sentence = input("")
17    process_sentence(sentence)
18

```

	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.

[◀ Week-09_MCQ](#)

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WEEK-09-Extra ►

Started on

Sunday, 19 May 2024, 3:01 PM

State

Finished

Completed on

Sunday, 19 May 2024, 3:04 PM

Time taken

2 mins 57 secs

Marks

7.00/7.00

Grade

50.00 out of 50.00 (100%)

Name

JAYASABHAREESH N 2022-CSD-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

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 **3**

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 4

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.

Question **5**

Correct

Mark 1.00 out of 1.00

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

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

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

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

Example 1:

Input:

is2 sentence4 This1 a3

Output:

This is a sentence

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

Example 2:

Input:

Myself2 Me1 I4 and3

Output:

Me Myself and I

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

Constraints:

2 <= *s*.length <= 200

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

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

The words in *s* are separated by a single space.

s contains no leading or trailing spaces.

Answer: (penalty regime: 0 %)

```
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 6

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 7

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.

[◀ Week-10_MCQ](#)

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[WEEK-10-Extra ▶](#)