Rajalakshmi Engineering College

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NeoColab_REC_CS23221_Python Programming

REC_Python_Week 1_CY

Attempt : 1
Total Mark : 40
Marks Obtained : 40

Section 1 : Coding

1.   Problem Statement

John is developing a financial application to help users manage their investment portfolios. As part of the application, he needs to write a program that receives the portfolio's main value and the values of two specific investments as inputs. The program should then display these values in reverse order for clear visualization.

Help John achieve this functionality by writing the required program.

Input Format

The first line of input consists of a float, representing the first investment value.

The second line of input consists of a float, representing the second investment value.

The third line of input consists of an integer, representing the portfolio ID.

Output Format

The first line of output prints "The values in the reverse order:".

The second line prints the integer, representing the portfolio ID.

The third line prints the second float, representing the second investment value.

The fourth line prints the first float, representing the first investment value.

Refer to the sample output for the formatting specifications.

Sample Test Case

Input: 35.29
9374.11
48
Output: The values in the reverse order:
48
9374.11
35.29

Answer

```
a=float(input())
b=float(input())
c=int(input())
print("The values in the reverse order:")
print(c)
print(b)
print(a)
```

Status : Correct   *Marks : 10/10*

2. Problem Statement

Alex is an air traffic controller who needs to record and manage flight delays efficiently. Given a flight number, the delay in minutes (as a string),

and the coordinates of the flight's current position (as a complex number),

Help Alex convert and store this information in a structured format.

Input Format

The first line of input consists of an integer N, representing the flight number.

The second line consists of a string representing the delay in minutes.

The third line consists of two floats separated by a space, representing the real and imaginary parts of the complex number for the flight's position.

Output Format

The first line of output displays the complex number.

The second line displays a string with the flight number, delay, and the real and imaginary parts of the complex number, separated by commas.

Refer to the sample output for formatting specifications.

Sample Test Case

Input: 12345
30.5
12.3 45.6
Output: (12.3+45.6j)
12345, 30.5, 12.3, 45.6

Answer

```
a=int(input())
b=input()
c=(input())
x,y=c.split()
x=float(x)
y=float(y)
print(complex(x,y))
print(a,b,x,y,sep=',')
```

Status : Correct   *Marks : 10/10*

3. Problem Statement

Emily is organizing a taco party and needs to determine the total number of tacos required and the total cost. Each attendee at the party will consume 2 tacos. To ensure there are enough tacos:

If there are 10 or more attendees, Emily will need to provide an additional 5 tacos.If there are fewer than 10 attendees, Emily must ensure a minimum of 20 tacos are provided.

The cost of each taco is $25. Write a program that calculates both the total number of tacos required and the total cost based on the number of attendees.

Input Format

The input consists of an integer n, representing the number of attendees.

Output Format

The first line prints "Number of tacos needed: " followed by an integer representing the number of tacos needed for n attendees.

The second line prints "Total cost: " followed by an integer representing the total cost.

Refer to the sample output for the formatting specifications.

Sample Test Case

Input: 10
Output: Number of tacos needed: 25
Total cost: 625

Answer

```
n=int(input())
if(n<10):
    print("Number of tacos needed: ",20)
    print("Total cost:",20*25)
else:
    print("Number of tacos needed:",(n*2)+5)
```

```
    print("Total cost:",((n*2)+5)*25)
```

Status : Correct   ***Marks : 10/10***

4. Problem Statement

Olivia is creating a wellness dashboard for her new fitness app, FitTrack. She needs a program that can capture and display key details about a user's workout. The program should read the user's full name, the total steps they ran, the energy they expended in kilojoules, and the duration of their workout in hours. After collecting this information, the program will generate a detailed summary of the user's fitness activity.

Your task is to guide Olivia through the program.

Input Format

The first line of input consists of a string, representing the user's name.

The second line consists of an integer, representing the total steps taken.

The third line consists of a float value, representing the calories burned.

The fourth line consists of a float value, representing the workout duration in hours.

Output Format

The first line of output prints "User Name: " followed by the user's name.

The second line prints "Total Steps: " followed by the total steps.

The third line prints "Calories Burned: " followed by the calories burned, rounded off to one decimal place.

The fourth line prints "Workout Duration: X hours" where X is the workout duration, rounded off to one decimal place.

Refer to the sample output for formatting specifications.

Sample Test Case

Input: Alex
10000
350.5
1.5

Output: User Name: Alex
Total Steps: 10000
Calories Burned: 350.5
Workout Duration: 1.5 hours

Answer

```
a=input()
b=int(input())
c=float(input())
d=float(input())
print("User Name:",a)
print("Total Steps:",b)
print("Calories Burned:",c)
print("Workout Duration:",d,"hours")
```

Status : Correct   ***Marks : 10/10***