**My GitHub** – <https://github.com/rufeeya>

**Google Collab** – [Welcome To Colaboratory - Colaboratory (google.com)](https://colab.research.google.com/)

1. Split example

first\_name, last\_name = input("Enter Name : ").split()

print("First Name: " + first\_name)

print("Last Name: ", last\_name)

o/p:

Enter Name : Hema Divya

First Name: Hema

Last Name: Divya

1. Get List of inputs

#list = ["apple", "banana", "cherry", "apple"]

list1 = input("Enter space separated fruit names: ").split()

print("The List is: ", list1)

o/p:

Enter space separated fruit names: apple banana cherry apple

The List is: ['apple', 'banana', 'cherry', 'apple']

1. Map

#Map function : perform operation on each item and return

#list\_num = input("Enter Numbers: ").split()

#print("Sum: ", sum(list\_num)) Type error, because it is list of string

#list\_numbers = map(int, input("Enter Numbers: ").split()) # working without casting to list as well

list\_numbers = list(map(int, input("Enter Numbers: ").split())) #Convert map to list

print("Sum: ", sum(list\_numbers))

o/p:

Enter Numbers: 1 2 3 4

Sum: 10

1. Calculate eq triangle

#1/4(sqrt(3a^2))

side = int(input())

area = (1/4)\*((3\*\*0.5)\*(side\*\*2)) #Double asterisk( \*\* ) for exponent ( ^ )

print(round(area,2))

o/p:

20

173.21

1. Functions

#Functions

def sum():

  a = float(input())

  b = float(input())

  c = a+b

  print(round(c,1))

sum()

**o/p:**

3.6

2

5.6

**GUVI Code Kata -**

1. Write a code to get the input in the given format and print the output in the given format [ Not Submitted, Email sent 7th question of Input output ]

**Input Description:**  
A single line contains a string.

**Output Description:**  
Print the characters in a string separated by space.

**Sample Input :**  
guvi

**Sample Output :**  
g u v i

**Solution**

userInput = input()

#By Default, print takes to new line, extra parameter end = “ “, to specify break by space

for a in userInput:

print( a, end = " ")

Note- Testcase did not pass because space might have been appended in the end. Check solution 4, where test cases passed

**SOLUTION [ FROM GUVI ]:**

word=str(input()) #get the input

print(\*word, sep=" ") #print by using space separator

1. Write a code to get the input in the given format and print the output in the given format. [ I/O 8th ques ]

**Input Description:**  
A single line contains three float values separated by space.

**Output Description:**  
Print the float value separated by line.

**Sample Input :**  
2.3 4.5 7.8

**Sample Output :**  
2.3  
4.5  
7.8

**Solution**

userInput = input()

nums = userInput.split(' ')

print( float(nums[0]) )

print( float(nums[1]) )

print( float(nums[2]) )

1. Write a code to get the input in the given format and print the output in the given format.

**Input Description:**  
A single line contains a string.

**Output Description:**  
Print the characters in a string separated by line.

**Sample Input :**  
guvigeek

**Sample Output :**  
g  
u  
v  
i  
g  
e  
e  
k

**Solution**

userInput = input()

for a in userInput:

print(a)

1. Write a code to get the input in the given format and print the output in the given format.

**Input Description:**  
A single line contains a string.

**Output Description:**  
Print the characters in a string separated by comma.

**Sample Input :**  
guvi

**Sample Output :**  
g,u,v,i

**Solution**

userInput = input()

i = 0

length = len(userInput) ***#length of string***

for a in userInput**:**

if( i < (length-1))**:**

print( a, end = ",")

else**:**

print( a )

i = i + 1

1. Write a code to get the input in the given format and print the output in the given format

**Input Description:**  
First-line indicates two integers separated by space. Second-line indicates three integers separated by space. Third-line indicates three integers separated by space

**Output Description:**  
Print the input in the same format.

**Sample Input :**  
2 5  
2 5 6  
2 4 5

**Sample Output :**  
2 5  
2 5 6  
2 4 5

**Solution**

userInput1 = input()

userInput2 = input()

userInput3 = input()

line1 = userInput1.split(' ')

print( int(line1[0]) , end = ' ')

print( int(line1[1]) )

line2 = userInput2.split(' ')

print( int(line2[0]) , end = ' ')

print( int(line2[1]) , end = ' ')

print( int(line2[2]) )

line3 = userInput3.split(' ')

print( int(line3[0]) , end = ' ')

print( int(line3[1]) , end = ' ')

print( int(line3[2]) )

1. Write a code to get the input in the given format and print the output in the given format

**Input Description:**  
Three integers are given in line by line.

**Output Description:**  
Print the integers in a single line separate by space.

**Sample Input :**  
2  
4  
5

**Sample Output :**  
2 4 5

**Solution**

userInput = input()

userInput1 = input()

userInput2 = input()

print( int(userInput), end =' ')

print( int(userInput1), end =' ')

print( int(userInput2))

1. Write a code to get the input in the given format and print the output in the given format

**Input Description:**  
A single line contains integers separated by space

**Output Description:**  
Print the integer list of integers separated by space

**Sample Input :**  
2 3 4 5 6 7 8

**Sample Output :**  
2 3 4 5 6 7 8

**Solution**

userInput = input()

i = 0

length = len(userInput) #length of string

for a in userInput:

if( i < (length-1)):

print( a, end = "" )

else:

print( a )

i = i + 1

1. Write a code to get the input in the given format and print the output in the given format.

**Input Description:**  
First-line indicates two integers which are the size of array and 'K' value. Second-line indicates an integer contains elements of an array.

**Output Description:**  
Print the taken input in the same format.

**Sample Input :**  
5 3  
1 2 3 4 5

**Sample Output :**  
5 3  
1 2 3 4 5

**Solution**

userInput = input()

userInput2 = input()

i = 0

length = len(userInput) #length of string

for a in userInput:

if( i < (length-1)):

print( a, end = "" )

else:

print( a )

i = i + 1

i = 0

length = len(userInput2) #length of string

for a in userInput2:

if( i < (length-1)):

print( a, end = "" )

else:

print( a )

i = i + 1

1. Write a code to get the input in the given format and print the output in the given format

**Input Description:**  
First-line indicates two integers separated by space. Second-line indicates two integers separated by space. Third-line indicates two integers separated by space.

**Output Description:**  
Print the input in the same format.

**Sample Input :**  
2 4  
2 4  
2 4

**Sample Output :**  
2 4  
2 4  
2 4

**Solution**

userInput = input()

userInput1 = input()

userInput2 = input()

print(userInput.split(' ')[0], userInput.split(' ')[1], sep= " ")

print(userInput1.split(' ')[0], userInput1.split(' ')[1], sep= " ")

print(userInput2.split(' ')[0], userInput2.split(' ')[1], sep= " ")

1. You are given with **Principle amount($)**,**Interest Rate(%)**and **Time (years)** in that order. Find ***Simple Interest***.

Print the output up to two decimal places (Round-off if necessary).

***(S.I. = P\*T\*R/100)***

**Input Description:**  
Three values are given to you as the input. these values correspond to Principle amount, Interest Rate and Time in that particular order.

**Output Description:**  
Find the Simple interest and print it up to two decimal places. Round off if required.

**Sample Input :**  
1000 2 5

**Sample Output :**  
100.00

**Solution**

userInput = input()

p, n , r = map(float, userInput.split())

si = (p\*n\*r)/100

print(round(si,2))

1. You are given the coefficients of a quadratic equation in order A, B & C.

Where A is the coefficient of X2,  B is the coefficient of X and C is the constant term in the most simplified form.

Example: For  X2 + 5X + 6 = 0, you are given the input as: 1 5 6.

Write a program to find all of the roots of the quadratic.

Note: The output should be up to 2nd decimal place (round off if needed) and in case of a recurring decimal use braces i.e. for eg: 0.33333..... => 0.33.

Note: Use Shri Dharacharya's Method to solve i.e. X = {-b + √(b² - 4ac) } / 2a & {-b-√(b² -4ac)} / 2a

**Input Description:**  
Three numbers corresponding to the coefficients of x(squared), x and constant are given as an input in that particular order

**Output Description:**  
Print the two values of X after rounding off to 2 decimal places if required.

**Sample Input :**  
1 2 -3

**Sample Output :**  
1.00  
-3.00

**Solution**

userInput = input()

a, b, c = map(float, userInput.split())

root1 = round((-b + (((b\*\*b) - (4\*a\*c)) \*\* 0.50))/(2\*a),2)

root2 = (-b - (((b\*\*b) - (4\*a\*c)) \*\* 0.50))/(2\*a)

print( "%.2f" % root1 ) // Instead of round, because we want .00 also to display fine

print( "%.2f" % root2 )

Another method for printing decimal –

print( "%.2f" % root1 )