**Practical-1**

**AIM:-** **Getting started with Python Programming Language**

**A-Write a Python program to calculate the hypotenuse of a right-angled**

**triangle.**

**Program:-**

# Practical-1.A

import math

length = int(input("Enter the length: "))

width = int(input("Enter the width: "))

print(math.sqrt((length \* length) + (width \* width)))

**Result:-**

Let’s take length = 3 and width = 4 then the output is 5.0.

**Conclusion:-**

From this practical, I know that If we want to take the input from users in python but I want to store it as an integer then I specifically use type casting in python using **the int** keyword and If I want to find the square root then in python there is a inbuilt class named math that we have to import.

**B. Write a Python program to find the factorial of any number defined by the user.**

**Program:-**

n=int(input())

f=1

for I in range(2,n+1,+1):

    f=f\*i

print(f)

**Result:-**

n=5 then f=120

**Conclusion:-**

From this practical I know that how to use loop in python. If I want to travel between two range then there is a inbuilt function is there in python named range(x,y,z)

X=starting point

Y=ending point

Z=by which do you want to increase the value

**Practical-2**

**AIM:-** **Understanding control structure for Python programming language**

1. **Write a Python program to find number of prime numbers between 1 to n**

**where n is defined by user.**

**Program:-**

def prime(n):

    f=False

    for i in range(2,n,+1):

        if(n%i==0):

            return False

    return True

n1=int(input())

n2=int(input())

if(n1==1 and n2!=1):

    n1=n1+1

elif(n1==1 and n2==1):

    print("No prime numbers are there")

for i in range(n1,n2+1,+1):

    if(prime(i)):

        print(i)

**Result:-**

n1=2 and n2=5 then the output is 2, 3, 5.

**Conclusion:-**

If we want to divide the code into smaller part then function is more important in that condition and In python we can create function using **the def** key word.And we also pass the argument in the function arguments section. If we want to return the value as true or false then we can do that easily and we can also call the function in loop.

**B.** **Write a Python program to test whether a passed letter is a vowel or not**

**using vowel (character) function.**

**Program:-**

def vowel(ch):

    vw=['a','A','e','E','i','I','o','O','u','U']

    if ch in vw:

        return True

    return False

ch=input()

if(vowel(ch)):

    print(ch+" is a Vowels")

else:

    print(ch+" is not a Vowels")

**Result:-**

ch = A then the output is A is a Vowels

**Conclusion:-**

We can also call the function in the if statements arguments and we can also use **the in** keyword to check whether the element is present in the list or not