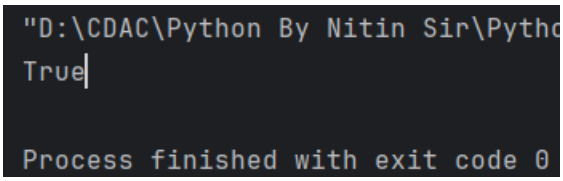
Q.1) Write a Python function to check whether a string is a pangram or not. Note : Pangrams are words or sentences containing every letter of the alphabet at least once. For example : "The quick brown fox jumps over the lazy dog"

```
string="The quick brown fox jumps over the lazy dog"
def pangram(s):
   s=s.lower()
   for j in range(97,123):
      if chr(j) not in s:
         return False
   return True
print(pangram(string))
```

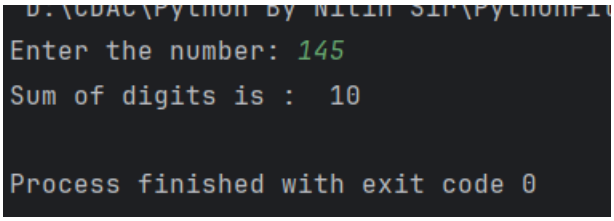
op→



Q.2) Write a Python program to calculate the sum of the digits in an integer.

```
n=int(input("Enter the number: "))
sum=0
while n>0:
   d=n%10
   sum=sum+d
   n=n//10
print("Sum of digits is : ",sum)
```

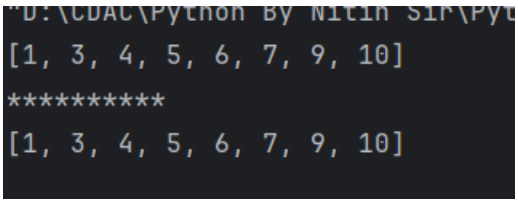
op→



Q.3) Write a Python program to sort three integers without using conditional statements and loops. [u can use built in functions for this]

```
l=[1,7,4,6,3,5,9,10]
l.sort()
print(l)
print("**********")
print(sorted(l))
```

op→



Q.4) Write a Python function to check whether a number is perfect or not. According to Wikipedia : In number theory, a perfect number is a positive integer that is equal to the sum of its proper positive divisors, that is, the sum of its positive divisors excluding the number itself (also known as its aliquot sum). Equivalently, a perfect number is a number that is half the sum of all of its positive divisors (including itself). Example : The first perfect number is 6, because 1, 2, and 3 are its proper positive divisors, and 1 + 2 + 3 = 6. Equivalently, the number 6 is equal to half the sum of all its positive divisors: (1 + 2 + 3 + 6) / 2 = 6. The next perfect number is 28 = 1 + 2 + 4 + 7 + 14. This is followed by the perfect numbers 496 and 8128.

→

```
n=int(input("Enter the number: "))
def perfect_no(n):
    sum=0
    for i in range(1,n):
        if n%i==0:
            sum=sum+i
    print("Sum is: ",sum)
    d=(sum+n)/2
    if d==n and sum==n:
        print(f"Number {n} is the Perfect no")
    else:
        print(f"Number {n} is not Perfect no")

perfect_no(n)
```

op→

```
"D:\CDAC\Python By Nitin Sir\PythonFiles\
Enter the number: 8128
Sum is:  8128
Number 8128 is the Perfect no
```