```
# Write a program to generate sum of 10 integers
# input 10 integers keyboard

s=0
for i in range(10):# start=0,stop=10,step=1
 num=int(input("Input Any Integer Value :"))
 s=s+num

print(f'Sum of numbers is {s}')
```

Output

```
Input Any Integer Value :10
Input Any Integer Value :20
Input Any Integer Value :30
Input Any Integer Value :40
Input Any Integer Value :50
Input Any Integer Value :60
Input Any Integer Value :70
Input Any Integer Value :80
Input Any Integer Value :90
Input Any Integer Value :100
Sum of numbers is 550
```

Example:

```
# Write a program to input 10 numbers and
# count even numbers and odd numbers

c1=0
c2=0
for _ in range(10):
    num=int(input("Input any integer value :"))
    if num%2==0:
        c1=c1+1
    else:
        c2=c2+1

print(f'Even Count {c1}')
print(f'Odd Count {c2}')
```

Output

```
Input any integer value :1
Input any integer value :7
Input any integer value :3
Input any integer value :5
Input any integer value :6
Input any integer value :4
Input any integer value :12
Input any integer value :11
Input any integer value :15
Input any integer value :13
Even Count 3
Odd Count 7
```

Example:

```
# Write a program to generate sqr series
# 1 4 9 16 25 36 49 64 81 100

for num in range(1,11): # start=1,stop=11,step=1
    print(f'{num}-->{num**2}')
```

Output

```
1-->1
2-->4
3-->9
4-->16
5-->25
6-->36
7-->49
8-->64
9-->81
10-->100
```

Write a program to generate sum of the following series

$$1^2 + 2^2 + 3^2 + 4^2 + 5^2 + \ldots + n^2$$

```
n=int(input("Input Value of n :")) # 5
s=0
for num in range(1,n+1): # start=1,stop=n+1,step=1
    print(f'{num}-->{num**2}')
    s=s+(num**2)

print(f'Sum of n numbers sqr is {s}')
```

Output

```
Input Value of n :5
1-->1
2-->4
3-->9
4-->16
5-->25
Sum of n numbers sqr is 55
```

Example:

```
# Write a program to generate the alphabets from A-Z


for n in range(65,91):
    print(chr(n),end=' ')

print()
# Write a program to generate the alphabets from a-z
for n in range(97,123):
    print(chr(n),end=' ')
```

Output

```
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
a b c d e f g h i j k l m n o p q r s t u v w x y z
```

Example

```
# Write a program to generate math table of input number
# 5
# 5x1=5
# 5x2=10
# 5x3=15
# 5x4=20
# ...
```

```
# 5x10=50

num=int(input("Input any number "))
for i in range(1,11): # 1 2 3 4 5 6 7 8 9 10
    p=num*i
    print(f'{num}x{i}={p}')
```

Output

```
Input any number 4
4x1=4
4x2=8
4x3=12
4x4=16
4x5=20
4x6=24
4x7=28
4x8=32
4x9=36
4x10=40
```

Example:

```
# Write a program to find input number is prime or not

num=int(input("Enter any number :")) # 5
c=0
for i in range(1,num+1): # 1 2 3 4 5
    if num%i==0:
        c=c+1

if c==2:
    print(f'{num} is prime')
else:
    print(f'{num} is not prime')
```

Output

```
Enter any number :5
5 is prime

Enter any number :6
```

6 is not prime

Example:

```
# Write a program to find factorial of input number

# 4 ==> 24 ==> 1x2x3x4
# 5 ==> 120 ==> 1x2x3x4x5
# 0 ==> 1

num=int(input("Enter any number "))
fact=1

for i in range(1,num+1):
    fact=fact*i

print(f'Factorial of {num} is {fact}')
```

Output

```
Enter any number 4
Factorial of 4 is 24

Enter any number 5
Factorial of 5 is 120

Enter any number 0
Factorial of 0 is 1
```

```
# write a program input 10 numbers and find
# maximum value and minimum value


for i in range(10): # start=0,stop=10,step=1
    num=int(input("Enter any number :"))
    if i==0:
        max_value=num
        min_value=num
    elif num>max_value:
        max_value=num
    elif num<min_value:
        min_value=num
```

```
print(f'Maximum value {max_value}')
print(f'Minimum value {min_value}')
```

Output

```
Enter any number :6
Enter any number :2
Enter any number :9
Enter any number :1
Enter any number :3
Enter any number :7
Enter any number :4
Enter any number :5
Enter any number :8
Enter any number :0
Maximum value 9
Minimum value 0
```