```python
# write a program to print sum of n numbers

n=int(input("enter the value of n")) # 3
s=0
for i in range(n):#start=0,stop=3,step=1 0 1 2
    num=int(input("enter any number")) # 10 20 30
    s=s+num

print("sum of numbers ",s) # sum of numbers 60
```

Output:
enter the value of n2
enter any number10
enter any number20
sum of numbers 30

https://www.codechef.com/submit/MANIPULATE

```python
T=int(input())
for i in range(T):
    X,Y=map(int,input().split())
    if X>=Y:
        print("YES")
    else:
        print("NO")
```

https://www.codechef.com/submit/INTEST

```python
(n, k) = map(int, input().split(' '))

ans = 0

for i in range(n):
        x = int(input())
        if x % k == 0:
                ans += 1

print(ans)
```

```
T=int(input())
for i in range(T):
    N,M,K=map(int,input().split())
    if N<=(M-K):
        print("Yes")
    else:
        print("No")
```

```
n=int(input())
if n+7>=170:
    print("yes")
else:
    print("no")
```

Example:
```
# write a program to find factorial of input number

num=int(input("enter any number")) # 4
fact=1
for i in range(1,num+1): # start=1,stop=5,step=1
    fact=fact*i

print("factorial is ",fact)
```

Output:
```
========= RESTART: F:/python6pmaug/test73.py ========
enter any number4
factorial is  24

========= RESTART: F:/python6pmaug/test73.py ========
enter any number0
factorial is  1
```

Nested looping statements

Defining a looping statement inside looping statements is called nested looping statements.

1. Nested for loop
2. Nested while loop

Example:
write a program to generate tables from 1 to 10

```
for num in range(1,11): # 1 2 3 4 5 6 7 8 9 10
    for i in range(1,11): # 1 2 3 4 5 6 7 8 9 10
        print(num,'x',i,'=',num*i)
    input()
```

Output:
1 x 1 = 1
1 x 2 = 2
1 x 3 = 3
1 x 4 = 4
1 x 5 = 5
1 x 6 = 6
1 x 7 = 7
1 x 8 = 8
1 x 9 = 9
1 x 10 = 10

2 x 1 = 2
2 x 2 = 4
2 x 3 = 6
2 x 4 = 8
2 x 5 = 10
2 x 6 = 12
2 x 7 = 14
2 x 8 = 16
2 x 9 = 18
2 x 10 = 20

3 x 1 = 3
3 x 2 = 6

3 x 3 = 9
3 x 4 = 12
3 x 5 = 15
3 x 6 = 18
3 x 7 = 21
3 x 8 = 24
3 x 9 = 27
3 x 10 = 30

4 x 1 = 4
4 x 2 = 8
4 x 3 = 12
4 x 4 = 16
4 x 5 = 20
4 x 6 = 24
4 x 7 = 28
4 x 8 = 32
4 x 9 = 36
4 x 10 = 40