## Sum of digits of a number

```
def sumofdigits(n):
    sum=0
    while(n!=0):
      sum=sum+(n%10)
      n=n//10
    print(sum)

def startingPoint():
    val = int(input("Enter a no."))
    sumofdigits(val)

if __name__=="__main__":
    startingPoint()
```

```
 Enter a no.57
 12
```

## Print following Patterns

### a

```
def pattern(n):
    for i in range(0,n):
        for j in range(0,n-i):
          print(j+1,end=' ')
        print()

def startingPoint():
    val = int(input("Enter a no."))
    pattern(val)

if __name__=="__main__":
    startingPoint()
```

```
 Enter a no.5
 1 2 3 4 5
 1 2 3 4
 1 2 3
 1 2
 1
```

### b

```
def pattern(n):
    for i in range(0,n):
        for j in range(0,i+1):
          print(n-j,end=' ')
        print()

def startingPoint():
    val = int(input("Enter a no."))
    pattern(val)

if __name__=="__main__":
    startingPoint()
```

```
 Enter a no.5
 5
 5 4
 5 4 3
 5 4 3 2
 5 4 3 2 1
```

c

```
def pattern(n):
    for i in range(1, n + 1):
        for j in range(n - i, 0, -1):
            print(" ", end=" ")
        for j in range(i, 0, -1):
            print(j, end=" ")
        for j in range(2, i+1):
            print(j, end=" ")
        print()


def startingPoint():
    val = int(input("Enter a no."))
    pattern(val)


if __name__ == "__main__":
    startingPoint()
```

```
 Enter a no.5
         1
       2 1 2
     3 2 1 2 3
   4 3 2 1 2 3 4
 5 4 3 2 1 2 3 4 5
```