Operators

- Arithmetic Operators -> +,-,/,*,%,//,**
- Logical Operators -> AND,OR,NOT
- Relational Operators -> >=,<=,==,!=
- Bitwise Operators -> >>,<<,^,~,&,|
- Assignment Operators -> +=,-=,/=,%=,*=
- Membership Operator and -> in, not in
- Identity Operator -> is, is not

Task-1:

Input: 8
        7
Output:
    addition of 8 and 7 is: ?
    substraction of 8 and 7 is: ?
    multiplication of 8 and 7 is: ?

In [10]:

```
n = int(input())
m = int(input())
print("Addition of",n,"and",m,"is:",n+m)
print("Substraction of %d and %d is: %d"%(n,m,n-m))
print("Multiplication of {1} and {2} is: {0}".format(n,m,n*m))
print("Modulus of {} and {} is: {}".format(n,m,n%m))
print("Floor Division of {} and {} is: {}".format(n,m,n//m))
print("Division of {} and {} is: {}".format(n,m,n/m))
print("Power of {} and {} is: {}".format(n,m,n**m))
```

```
6
2
Addition of 6 and 2 is: 8
Substraction of 6 and 2 is: 4
Multiplication of 2 and 12 is: 6
Modulus of 6 and 2 is: 0
Floor Division of 6 and 2 is: 3
Division of 6 and 2 is: 3.0
Power of 6 and 2 is: 36
```

In [15]:

```
j = -20
# n = -(n+1)
print(~j)
```

```
19
```

Conditional Statements:

- To Check whether the given condition is either True or False

- if -> single case stmnt
    syntax:
        if (condition):
            //stmnt
- if-else -> two cases
    syntax:
        if (condition):
            //stmnt
        else:
            //stmnt
- nested if -> two or more
    syntax:
        if (condition1):
            if (condition2):
                //stmnt1
            else:
                //stmnt2
        else:
            //stmnt3
- elif -> three or more
    syntax:
          if (condition1):
              //stmnt1
          elif (condition2):
              //stmnt2
          elif (conditionn):
              //stmntn
              |
              |
          else:
              //stmntn

In [17]:

```
n = int(input())
m = int(input())
if n==m:
    print("{} and {} are equal".format(n,m))
```

```
4
4
4 and 4 are equal
```

In [18]:

```
n = int(input())
if n>=18:
    print("Eligible for Voting")
else:
    print("Not Eligible for Voting")
```

```
25
Eligible for Voting
```

In [23]:

```
n=int(input())
if n>=18:
    print("You are eligible from {} years".format(n-18))
# elif n==18:
#     print("You are eligible from {} years".format(n-18))
else:
    print("You are not eligible but you have"
          " to wait for {} years".format(18-n))
```

```
18
You are eligible from 0 years
```

Userid and pin checking

```
userid = 345
pin = 234
```

```
Input: 356
       345
Output: Invalid userid 356 or pin

Input: 345
       212
Output: Invalid userid 345 or pin

Input: 345
       234
Output:Welcome user 345!!!
```

In [26]:

```python
uid = int(input())
pin = int(input())
if uid==345 and pin==234:
    print("Welcome User {}".format(uid))
else:
    print("Invalid userid {}".format(uid))
```

```
345
234
Welcome User 345
```

In [30]:

```
print("----------Registration---------")
ufix = int(input("Enter useid to fix:"))
pifix = int(input("Enter pin to fix:"))
print("-----------Validating-----------")
uid = int(input())
pin = int(input())
if uid==ufix and pin==pifix:
    print("Welcome User {}".format(uid))
else:
    print("Invalid userid {}".format(uid))
```

```
----------Registration---------
Enter useid to fix:1234
Enter pin to fix:321
-----------Validating-----------
1234
321
Welcome User 1234
```

uid = 785
pin = 009

Input: 789
Output: Invalid Userid 789

Input: 785
34
Output: Invalid pin for userid 785

Input: 785
009
Output: Welcome Userid 785

In [34]:

```
uid = int(input())
if uid == 785:
    pin = int(input())
    if pin == 94:
        print("Welcome Userid {}".format(uid))
    else:
        print("Invalid pin for userid {}".format(uid))
else:
    print("Invalid userid {}".format(uid))
```

```
785
94
Welcome Userid 785
```

Task-2

16

16 is divisible by 2

5

given number is 5 and it is not divisible by 2 so output w
ill be 5.0

9

given number is 9 and it is divisible by 3

In [40]:

```
n = int(input())
if n%5==0:
    print("{} is divisible by 5".format(n))
elif n%2==0:
    print("{} is divisible by 2".format(n))
elif n%3==0:
    print("Given number is {} and it is divisible by 3".format
else:
    print("Given number is {} and it is not divisible by 2 so
          "output will be {}".format(n,float(n)))
```

```
4
4 is divisible by 2
```

Loops or iteration or repetition or control statements:

```
        - For -> particular range
            Syntax:
            -range(n) -> Starting with 0 and ends with n-1
            -range(n,m) -> starting with n and ending with
m-1
            -range(n,m,s) -> starting with n and ending wi
th m-1 with step                                    s
                for itervariable in range():
                    //stmnts
        - While -> particular range and infinity
            Syntax:
            while condition:
                //stmnt

            starting = 0
            while condition:
                //stmnt
                incr/decr
```

In [47]:

```
n = int(input())
for i in range(n):
    if i==n-1:
        print(i,end="")
    else:
        print(i,end=",")
```

```
6
0,1,2,3,4,5
```

In [ ]:

```

```