

```
In [1]: print("hello world!")
```

```
hello world!
```

```
In [2]: print("hello world!")
```

```
hello world!
```

```
In [1]: ca$h=5000
```

```
File "<ipython-input-1-351b42bc1f>", line 1
    ca$h=5000
      ^
```

```
SyntaxError: invalid syntax
```

```
In [5]: a="Roman"
        print(a)
```

```
Roman
```

```
In [3]: a="ary'an"
        print(a)#if a use to use single cotetion
```

```
ary'an
```

```
In [11]: x=36e3
         print((x))
         y=36E3
         print(type(y))
```

```
36000.0
<class 'float'>
```

```
In [19]: #if you convert a value in binary,octal,hexadecimal
         a=0b1111#binary
         print(a)
         print(type(a))
         b=0o723#octal
         print(b)
         c=0xABCD#hexadecimal
         print(c)
         bin(0o11)
         print(bin(0o11))
```

```
15
<class 'int'>
467
43981
0b1001
```

```
In [17]:
<built-in function bin>
```

```
In [ ]: # hello wolrd is fast execute!
```

```
In [6]: a=100
        print(type(a))#integer
```

```
<class 'int'>
```

```
In [8]: b=45.0
        print(type(b))#float
```

```
<class 'float'>
```

```
In [22]: bin(0o11)#octal
```

```
Out[22]: '0b1001'
```

```
In [23]: bin(0o785)#error is come by 8 is not consider in octal
```

```
File "<ipython-input-23-acd219e10f07>", line 1
    bin(0o785)
        ^
SyntaxError: invalid digit '8' in octal literal
```

```
In [36]: a=bin(15)
```

```
In [38]: a=10
b=20
c=a+b
print(c)
print(b)
```

```
30
20
```

```
In [43]: list1=[1,2,3,4,5]
list1[0]=6
print(list1)
```

```
[6, 2, 3, 4, 5]
```

```
In [44]: tuple1=(1,2,3,4,5)
tuple1[0]=6
print(tuple1)
```

```
-----
TypeError                                Traceback (most recent call last)
<ipython-input-44-b3188037523e> in <module>
      1 tuple1=(1,2,3,4,5)
----> 2 tuple1[0]=6
      3 print(tuple1)
```

```
TypeError: 'tuple' object does not support item assignment
```

```
In [5]: for i in range(1,12,2):
        print(i)
```

```
1
3
5
7
9
11
```

```
In [32]: print(bin(15))
```

```
0b1111
```

```
In [21]: bin(0x111)#hexa
```

```
Out[21]: '0b100010001'
```

```
In [9]: d={10:'luckey',20:'jay',10:'aryan',}#dict
print(d[10])
print(d[20])
print(type(d))
```

```

aryan
jay
<class 'dict'>

```

```

In [10]: x={"apple","banana","cherry","oranage"}#set #unorder #unindex #do not allow to dupli
print(x)

{'apple', 'oranage', 'cherry', 'banana'}

```

```

In [13]: print(20>8)
print(20==8)
print(20<8)
print(bool("abc"))      #boolean type
print(bool(""))
print(bool(120))
print(bool(0))

```

```

True
False
False
True
False
True
False

```

```

In [22]: x=str(7)
y=int(7)
z=float(7)

```

```

In [15]: a,b,c="ornage","banana","cherry"
print(a)
print(b)
print(c)

```

```

ornage
banana
cherry

```

```

In [24]: a=1,2,3
print(a)
print(type(a))
a,b,c =1,2,3
print(a)
print(b)
print(c)
print(type(a))
print(type(b))
print(type(c))

```

```

(1, 2, 3)
<class 'tuple'>
1
2
3
<class 'int'>
<class 'int'>
<class 'int'>

```

```

In [25]: a=20
b=20
c=a+b
print(c)
x="20"
y="20"
z=x+y
print(z)

```

```
40
2020
```

```
In [28]: a=20
         b=20
         c=a*b
         print(c)

         x="20"
         y=20
         z=x*y
         print(z)
```

```
400
20202020202020202020202020202020202020
```

```
In [44]: a="python"
         def test():
             global a    #global variable
             a="java"
             print(a)
         test()
         print(a)
```

```
java
java
```

```
In [45]: def sum(x,y):
         c=x+y
         print(c)

         a=10
         b=20
         sum(a,b) '''a and b sum of a 30'''#multiline comments
```

```
30
```

```
In [50]: x=input("enter value")
         print(x)
         print(type(x))
```

```
enter value10
10
<class 'str'>
```

```
In [52]: a=int(input("enter value of A:")) #take value from user
         b=int(input("enter value of B:"))
         c=a+b
         print(c)
```

```
enter value of A:10
enter value of B:20
30
```

```
In [57]: print(int(123.957))
```

```
123
```

```
In [58]: print(int("true"))
```

```
-----
ValueError                                Traceback (most recent call last)
<ipython-input-58-8ccac2156352> in <module>
----> 1 print(int("true"))

ValueError: invalid literal for int() with base 10: 'true'
```

```
In [64]: print(int(false))
```

```
-----  
NameError                                Traceback (most recent call last)  
<ipython-input-64-7d56d1b61d97> in <module>  
----> 1 print(int(false))  
  
NameError: name 'false' is not defined
```

In [62]: `print(int("10"))`

10

In [59]: `print(int(0B1111))`

15

In [60]: `print(int(0B1111))`

```
-----  
ValueError                                Traceback (most recent call last)  
<ipython-input-60-d69b2a855e10> in <module>  
----> 1 print(int("0B1111"))  
  
ValueError: invalid literal for int() with base 10: '0B1111'
```

In [61]: `print(int("ten"))`

```
-----  
ValueError                                Traceback (most recent call last)  
<ipython-input-61-fe86acc464d3> in <module>  
----> 1 print(int("ten"))  
  
ValueError: invalid literal for int() with base 10: 'ten'
```

In [63]: `print(int("10.5"))`

```
-----  
ValueError                                Traceback (most recent call last)  
<ipython-input-63-24a9cbdf48a8> in <module>  
----> 1 print(int("10.5"))  
  
ValueError: invalid literal for int() with base 10: '10.5'
```

In [65]: `print(float(123.957))`

123.957

In [66]: `print(float("true"))`

```
-----  
ValueError                                Traceback (most recent call last)  
<ipython-input-66-bf961938bb76> in <module>  
----> 1 print(float("true"))  
  
ValueError: could not convert string to float: 'true'
```

In [67]: `print(float(false))`

```
-----  
NameError                                Traceback (most recent call last)  
<ipython-input-67-6a6dbf8a1110> in <module>  
----> 1 print(float(false))  
  
NameError: name 'false' is not defined
```

In [68]: `print(float("10"))`

10.0

In [69]: `print(float(0B1111))`

15.0

In [75]: `print(bool(0))#boolean
print(bool(1))
print(bool(10))
print(bool(0.178))
print(bool("true"))
print(bool("false"))
print(bool(""))
print(str(10))#string
print(str(10.5))
print(str(True))`

False
True
True
True
True
True
False
10
10.5
True

In [79]: `a=20
b=6
c=a/b
e=a//b
print(c)
print(e)`

3.3333333333333335
3

In [80]: `a=int(input("enter value of A:")) #take value from user
b=int(input("enter value of B:"))
c=a+b
print(c)
d=a-b
print(d)
e=a*b
print(e)
f=a/b
print(f)
g=a//b
print(g)
h=a**b
print(h)`

enter value of A:45
enter value of B:23
68
22
1035
1.9565217391304348
1
105654455657631171893227100372314453125

In [82]: `a=int(input("enter value of A:")) #take value from user
b=int(input("enter value of B:"))
c=a>b
print(c)
d=a<b
print(d)`

```
e=a>=b
print(e)
f=a<=b
print(f)
g=a==b
print(g)
h=a!=b
print(h)
```

```
enter value of A:10
enter value of B:2
True
False
True
False
False
True
```

```
In [89]: a="vishul"
b="vishal"
print(a>b)
print(a<b)
```

```
True
False
```

```
In [91]: print(True<=True)
print(True>False)
print(10>True)
print(10<False)
print(10<20<30>40)
```

```
True
True
True
False
False
```

```
In [94]: print( True and False)#boolean and Logical oprator
print(True or False)
print( not True )
print(10 and 20)
print(0 and 20)
print(0 or 20)
print(not 10)
print(not 0)
```

```
False
True
False
20
0
20
False
True
```

```
In [99]: a=20
b=30
x=50 if a>b else 60
print(x)
```

```
60
```

```
In [107... a=int(input("enter value of A:")) #take value from user #swap a value program
b=int(input("enter value of B:"))
c=a
a=b
```

```
b=c
print(a)
print(b)
```

```
enter value of A:40
enter value of B:10
10
40
```

```
In [1]: a=int(input("enter value of A:")) #take value from user #swap a value program for 2
        b=int(input("enter value of B:"))
        a=a+b
        b=a-b
        a=a-b
        print()
```

```
enter value of A:1
enter value of B:2
```

```
In [2]: x=10    #assignment operator
        x+=20
        x-=10
        x*=5
        x/=2
        x//=5
        x%=3
        x**=2
        print(x)
```

```
1.0
```

```
In [5]: x="Hello,Python is very easy!" # Membership Operator
        print("d" not in x)
        print("l" in x)
        print("python" in x)
```

```
True
True
False
```

```
In [13]: print(3+10*2) #operator precedence
         print((3+10)*2)

         print(5**3**2*5/True)
         print((5**3)**2*5/True)
         print("1" in "123" and "False" or True)
         print(5 and True or 3/0)
         print(7*25/True*False)
         print(10/(1*3/6))
```

```
23
26
9765625.0
78125.0
False
True
0.0
20.0
```

```
In [23]: # write a program find the area rectangle
         base=int(input("Enter value of base of triangle"))
         area=int(input("enter heights of triangle"))
         ans=(1/2*base*Height)
         print(ans)
```


Enter value of base of triangle12
 enter heights of triangle12

```
-----
NameError                                Traceback (most recent call last)
<ipython-input-23-271fd492a824> in <module>
      2 base=int(input("Enter value of base of triangle"))
      3 area=int(input("enter heights of triangle"))
----> 4 ans=(1/2*base*Height)
      5 print(ans)

NameError: name 'Height' is not defined
```

```
In [21]: #weite a program to convert farheniet to celcius and celcius to farheniet
#c=(f-32)*(5/9)
F=float(input("enter a tempreture of farhenie"))
ans=(F-32)*(5/9)
print("tempreture in celcius is ", ans)

c=float(input("entee a temreture of celcius "))
ans=(9/5)*c+32
print("tempreture in farheniet is ", ans)
```

enter a tempreture of farhenie10.0
 tempreture in celcius is -12.222222222222223
 entee a temreture of celcius 12
 tempreture in farheniet is 50.0

```
In [20]: #weite a python program to convert given base into year/month and days
Days=int(input("Enter number of days:"))
years=Days//365
months=(Days%365)//30
D=(Days%365)%30
print(years,"years",months,"Months",D,"Days")
```

Enter number of days:365
 1 years 0 Months 0 Days

```
In [24]: a=20
b=10
c=30
print(a>b and a>c)
print(a>b or a>c)
print(not a>b)
print(not a>c)
```

False
 True
 False
 True

```
In [26]: # write a python program to check given number is positive or nagitive
number=int(input("Enter number"))
print("Number is nagitive" if number < 0 else "enter value is positive")
```

Enter number1
 enter value is positive

```
In [1]: #write a python program to find the nu,mber of notes against a give amount
amount=int(input("Enter a amount"))
note=amount//500
print("500note",note)
note=(amount%500)//200
print("200note",note)
note=((amount%500)%200)//100
print("100note",note)
note=(amount%500%200%100)//50
print("50note",note)
```

```
note=(amount%500%200%100%50)//20
print("20mote",note)
note=(amount%500%200%100%20)//10
print("10note",note)
```

```
Enter a amount280
500note 0
200note 1
100note 0
50note 1
20mote 1
10note 0
```

```
In [30]: name=input("enter name:")#chapter:2 #simple if
         if name=="arman":
             print("hello arman")
         print("thank you!")
```

```
enter name:vishal
thank you!
```

```
In [32]: name=input("enter name:")#chapter:2 #simple if else
         if name=="arman":
             print("hello arman")
         else:
             print("helllo guest!")
         print("thank you!")
```

```
enter name:vishal
helllo guest!
thank you!
```

```
In [34]: a=int(input("enter value of a")) #find the maximum number from take to user by using
         b=int(input("enter value of b"))
         c=int(input("enter value of c"))
         if(a>b and a>c):
             print("a is max")
         elif(b>a and b>c):
             print("b is max")
         else:
             print("c is max")
```

```
enter value of a10
enter value of b20
enter value of c30
c is max
```

```
In [3]: x=41
         if x>10:
             if x>20:
                 print("and also above 20")
             else:
                 print("bur not above 10")
```

```
and also above 20
```

```
In [17]: #write a python program to check weather give year to ace leap year or not
         #the year must be divisible by 4 except for end of century years which must be disi
         year=int(input("enter a year"))
         if((year%4==0 and year%100!=0))or(year%400==0):
             print("year is leap year")
         else:
             print("not a leap year")
```

enter a year2024
year is leap year

```
In [22]: #write a python program to perform airthmatic operation accoding sign given as a cho
a=int(input("enter a value"))
b=int(input("enter b value"))
c=int(input("enter a operation (+,-,*,/,//,%,**)")
if c=='+':
    print("sum is:"a+b)
elif c=='-':
    print("subtraction is:",a-b)
elif c=='*':
    print("multiplication is:",a*b)
elif c=='/':
    print("divion is:",a/b)
elif c=='//':
    print("flor divion is:",a//b)
elif c=='%':
    print("module is:",a%b)
elif c=='**':
    print("power is:",a**b)
```

File "<ipython-input-22-33abc75bcfcb>", line 5

```
if c=='+':
    ^
```

SyntaxError: invalid syntax

```
In [21]: #write a python program to enter 3 subject mark calculate percentage and display a g
a=int(input("enter a mark"))
b=int(input("enter a mark"))
c=int(input("enter a mark"))
percentage=((a+b+c)/300)*100
print("the percentage is",percentage)
if(percentage>=80):
    print("distinction",percentage)
elif(percentage>=60):
    print("first class:",percentage)
elif(percentage>=35):
    print("second divion",percentage)
elif(percentage>=0):
    print("fail",percentage)
```

enter a mark81
enter a mark36
enter a mark36
the percentage is 51.0
second divion 51.0

```
In [23]: #write to program to chreck whether the last digit of the number entered by user div
num=int(input("enter a num"))

b=2367%10
if(b%3==0):
    print("number divisible by 3")
else:
    print("number not divisible by 3")
```

enter a num2214
number not divisible by 3

```
In [30]: #write the program to calculate electricity bill accept number of unit from user
unit=int(input("enter a unit:"))
amt=0
if unit<=100:
    amt=0
elif (unit>100 and unit<=200):
```

```

    amt=(unit-100)*5
elif(unit>200):
    amt=500+(unit-200)*100
print("enter bill is:",amt)

```

enter a unit:101
enter bill is: 5

In [37]: *#write the program to accept cost price of by and calcalate road tax to be paid als*
#>100000 #>50000 and <=100000 #<=50000
 price=int(input("enter a pricre"))
 if price>100000:
 roadtex=100000*0.15
 elif price>500000 and price<=100000:
 roadtex=50000*0.10
 elif price<=50000:
 roadtex=50000*0.5
 print("the price is ",roadtex)
 print("the final price is",price+roadtex)

enter a pricre100000
the price is 25000.0
the final price is 125000.0

In [40]: num=int(input("enter a number:"))
 count=0
 for i in str(num):
 count+=1
 print("lenght is :",count)

enter a number:145236789
lenght is : 9

In [46]: *#write to program to check whether number enter is 3 digit or not if the number 3 di*
 num=str(input("enter a number:"))
 count=0
 for i in num:
 count+=1
 if(count==3):
 print("the middle digits of num ",num[1])
 else:
 print("enter 3 digits number only")

enter a number:786
the middle digits of num 8

In [48]: *#write a program to accept the following from the user and calculate the percentgae*
 a=int(input("enter a workings days "))
 b=int(input("enter a absend days"))
 percentage=((a-b)/a)*100
 print(percentage)
 if(percentage>=75):
 print("eligible for exam")
 else:
 print("not eligible for exam")

enter a workings days 45
enter a absend days2
95.55555555555556
eligible for exam

In [8]: *#write a python program to display fibonnaci sequence to end term*
 n=int(input("enter how many term required:"))
 n1=0

```

n2=1
if n<=0:
    print("enter positive integer")
elif n==1:
    print("fibonnaci sequence")
else:
    print("fibonnaci sequence")
print(n1)
print(n2)
for i in range(n-2):
    nth=n1+n2
    print(nth)
    n=n2

    n2=nth

```

enter how many term required:1
 fibonnaci sequence
 0
 1

In [18]: *#write a program to check even number prime or not*

```

n=int(input("Enter number"))
flag=0
for i in range(2,n):
    if n%i==0:
        flag=1
        break
if flag==0:
    print(n,"is a prime number")
else:
    print(n,"is not a prime n number")

```

Enter number17
 17 is a prime number

In [2]:

```

a=int(input("enter a starting value:"))
b=int(input("enter a ending value:"))

for n in range(a,b+1):
    flag=0
    for i in range(2,n):
        if n%i==0:
            flag=1
    if flag==0:
        print(n,end=" ")

```

enter a starting value:5
 enter a ending value:20
 5 7 11 13 17 19

In [53]:

```

n=int(input("enter row:"))
for i in range(1,n+1):
    for j in range(1,i+1):
        print("*",end="")
    print()

```

```
chr(65)
print(chr)
```

```
enter row:5
*
**
***
****
*****
<built-in function chr>
```

```
In [58]: n=int(input("enter row:"))
        for i in range(1,n+1):
            for j in range(0,i):
                print(chr(97+j),end=" ")

            print()
```

```
enter row:5
a
a b
a b c
a b c d
a b c d e
```

```
In [64]: n=int(input("enter row:"))
        k=1
        for i in range(1,n+1):
            for j in range(0,i):
                print(k,end=" ")
                k+=1

            print()
```

```
enter row:5
1
2 3
4 5 6
7 8 9 10
11 12 13 14 15
```

```
In [71]: n=int(input("enter row:"))
        for i in range(1,n+1):
            for j in range(1,i+1):
                if i%2==0:
                    print("#",end="")
                else:
                    print("*",end="")
            print()
```

```
enter row:5
*
##
***
####
*****
```

```
In [74]: n=int(input("enter row:"))
        for i in range(1,n+1):
            for j in range(1,i+1):
                if (i+j)%2==0:
                    print("0",end="")
                else:
                    print("1",end="")
            print()
```

```
enter row:5
0
```

```
10
010
1010
01010
```

```
In [78]: n=int(input("enter row:"))
         for i in range(1,n+1):
             for j in range(1,n+2-i):
                 print("*",end="")
             print()
```

```
enter row:5
*****
****
***
**
*
```

```
In [108... n=(int(input("enter row:"))
           for i in range(1,n+1):
               for j in range(1,(n+2)-i):
                   print((i+j)%2,end="")

               print()
```

File "<ipython-input-108-1c390d2d2b7d>", line 2

```
    for i in range(1,n+1):
                        ^
SyntaxError: invalid syntax
```

```
In [102... n=int(input("enter row:"))
           for i in range(1,n+1):
               for j in range(1,i+1):
                   print(" ",end="")
               for k in range(i,n+1):
                   print("*",end="")
               print()
```

```
enter row:5
*****
****
***
**
*
```

```
In [103... n=int(input("enter row:"))
           for i in range(1,n+1):
               for j in range(1,i+1):
                   print(" ",end="")
               for k in range(i,n+1):
                   print(i,end="")
               print()
```

```
enter row:5
11111
2222
333
44
5
```

```
In [118... n=int(input("enter row:"))
           for i in range(1,n+1):
               for j in range(1,i+1):
                   print(" ",end="")
```

```

for k in range(i,n+1):
    print(j,end="")
print()

```

```

enter row:5
11111
 2222
   333
    44
     5

```

In [120...

```

n=int(input("enter row:"))
for i in range(1,n+1):
    for j in range(1,i+1):
        print("i",end="")
    for k in range(i,n+1):
        print(k,end=" ")
    print()

```

```

enter row:5
11 2 3 4 5
222 3 4 5
3333 4 5
44444 5
555555

```

In [115...

```

n=int(input("enter row:"))
for i in range(1,n+1):
    for j in range(1,n-i+1):
        print(" ",end=" ")
    for k in range(1,i+1):
        print("*",end=" ")
    print()

```

```

enter row:5
      *
     * *
    * * *
   * * * *
  * * * * *
 * * * * *

```

In [5]:

```

n=int(input("enter row:"))
k=64
for i in range(1,n+1):
    for j in range(1,i+1):
        print(chr(k),end=" ")
        k=k+1
    print()

```

```

enter row:5
@
A B
C D E
F G H I
J K L M N

```

In [6]:

```

#write a program integer exponed x such condition should be applay
a=int(input("enter the number whose power is needed:"))
n=int(input("enter the value of that:"))
m=1
x=0
while m!=n:
    x+=1
    m*=a

```



```
print(x)
```

enter the number whose power is needed:5
enter the value of that:25
2

```
In [7]: #user define funcation
def wish(name):
    print("hello",name,"good morning")
wish("aryan")
wish("vishal")
```

hello aryan good morning
hello vishal good morning

```
In [9]: #no parameter and no return type
def printline():
    s=input("enter name:")
    printline()
```

enter name:vishal

```
In [10]: #with parameter and no return type
def printline(s):
    print(s)
s=input("enter name:")
printline(s)
```

enter name:Vishal
Vishal

```
In [11]: #with parameter and with return type
def printline(s):
    return s
x=input("enter name :")
t=printline(x)
print(t)
```

enter name :Vishal
Vishal

```
In [13]: #no parameter and with return type
def printline():
    s=input("enter name :")
    return s

t=printline()
print(t)
```

enter name :Vishal
Vishal

```
In [14]: #write a function accept two number and return sum of that two number
def add(a,b):
    return a+b
print("Addition",add(20,30))
print("Addition",add(30,15))
```

Addition 50
Addition 45

```
In [25]: #write a function accept and print odd number between 1 to n
def odd(n):
    for i in range(2,n):
        if i%2==1:
            print(i,end=" ")
```

```
n=int(input("enter a number: "))
odd(n)
```

enter a number: 100

3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59 61
63 65 67 69 71 73 75 77 79 81 83 85 87 89 91 93 95 97 99

```
In [27]: def cale(a,b ):
          sum=a+b
          sub=a-b
          mul=a*b
          div=a/b
          return sum,sub,mul,div
          t=cale(10,20)
          print(t)
          print(type(t))
          for i in t:
              print(i)
```

(30, -10, 200, 0.5)
<class 'tuple'>
30
-10
200
0.5

```
In [34]: #docstring
          def square(x):
              """arggument passed into x return square of x"""
              return x*x
          print(square.__doc__)
          print(square(5))
```

arggument passed into x return square of x
25

```
In [36]: #positional argument
          def sub(a,b):
              print(a-b)
          sub(100,200)
          sub(200,100)
```

-100
100

```
In [39]: #keyword argument
          def wish(name,msg):
              print("hello",name,msg)
          wish(name="vishal",msg="goood morning")
          wish(msg="good evening ",name="aryan")
          wish("aryan",msg="good morning")
          wish("vishal","good morning")
          # wish(name="aryan","good evening")#error
```

hello vishal goood morning
hello aryan good evening
hello aryan good morning
hello vishal good morning

```
In [42]: #default argument
          def wish(name="vishal"):
              print("hello",name,"good morning")
          wish("aryan")
          wish()
```

hello aryan good morning
hello vishal good morning

```
In [43]: #variable length argument
def sum(*n):
    total=0
    for n1 in n:
        total +=n1
    print("the sum=",total)
sum(10,20)
sum(10,20,30,40)
sum()
```

the sum= 30
the sum= 100
the sum= 0

```
In [47]: #variable length argument
def f1(*s,n1):
    print(n1)
    for s1 in s:
        print(s1)
f1(10,20,30,40,n1=50)
```

50
10
20
30
40

```
In [58]: def display(**n):
    print(n)
    for k,v in n.items():
        print(k,v)
display(m1=200,m2=300,m3=400,m4=455)
```

{'m1': 200, 'm2': 300, 'm3': 400, 'm4': 455}
m1 200
m2 300
m3 400
m4 455

```
In [64]: #write a program to demonstrate a simple calculator using funcation
a=int(input("enter a first num"))
b=int(input("enter a second num"))
cal=input("enter vluie(+,-,*,/,//,%)")
def calculator(cal):
    if(cal=='+'):
        print("a+b:",a+b)
    elif(cal=='-'):
        print("a-b:",a-b)
    elif(cal=='*'):
        print("a*b:",a*b)
    elif(cal=='/'):
        print("a/b",a/b)
    elif(cal=='%'):
        print("a%b",a%b)
    elif(cal=='//'):
        print("a//b:",a//b)
    elif(cal=='**'):
        print("a**b",a**b)
calculator(cal)
```

```
enter a first num25
enter a second num12
enter vlua(+,-,*,/,//,%)+
a+b: 37
```

```
In [66]: #design a fun to check wheather a num in range or not
def range(num,start,end):
    if(num>start)and(num<end):
        print("yes")
    else:
        print("no")
range(10,12,15)
```

no

In []: