In [1]:
```
def display():
    print("RAHUL")
display()
```

```
RAHUL
```

In [2]:
```
def display(x,y,z):
    print("x=",x,"y=",y,"z=",z)
a=int(input("Enter a :"))
b=int(input("Enter b :"))
c=int(input("Enter c :"))
display(a,b,c)
```

```
Enter a :10
Enter b :20
Enter c :30
x= 10 y= 20 z= 30
```

In [5]:
```
def display(a,b,c=100):
    print("a=",a,"b=",b,"c=",c)
a=int(input("Enter a :"))
b=int(input("Enter b :"))
#c=int(input("Enter c :"))
display(a,b)
```

```
Enter a :10
Enter b :20
a= 10 b= 20 c= 100
```

In [6]:
```
def display(c,a,b):
    print("a=",a,"b=",b,"c=",c)
#a=int(input("Enter a :"))
#b=int(input("Enter b :"))
#c=int(input("Enter c :"))
display(a=10,b=20,c=30)
```

```
a= 10 b= 20 c= 30
```

In [7]:
```
def display(*n):
    print("n=",n)
a=int(input("Enter a :"))
b=int(input("Enter b :"))
c=int(input("Enter c :"))
display(a,b,c)
```

```
Enter a :10
Enter b :20
Enter c :30
n= (10, 20, 30)
```

In [10]:
```
def display(c,a,b):
    print("a=",a,"b=",b,"c=",c)
a=int(input("Enter a :"))
b=int(input("Enter b :"))
c=int(input("Enter c :"))
display(a,b,c)
```

```
Enter a :10
Enter b :20
Enter c :30
a= 20 b= 30 c= 10
```

In [14]:
```
def nnatural(n):
    for i in range(1,n):
        print(i,end=" ")
n=int(input("Enter the last value you need"))
nnatural(n)
```

```
Enter the last value you need15
1 2 3 4 5 6 7 8 9 10 11 12 13 14
```

In [17]:
```
def rnatural(n):
    for i in range(n,0,-1):
        print(i,end=" ")
n=int(input("Enter the first value :"))
rnatural(n)
```

```
Enter the first value :10
10 9 8 7 6 5 4 3 2 1
```

In [22]:
```
def oddsum(n):
    sum=0
    for i in range(1,n,2):
        print(i,end=" ")
        sum=sum+i
    print("\nSum of odd numbers is :",sum)
n=int(input("Enter the last value :"))
oddsum(n)
```

```
Enter the last value :10
1 3 5 7 9
Sum of odd numbers is : 25
```

In [23]:
```
def evensum(n):
    sum=0
    for i in range(0,n,2):
        print(i,end=" ")
        sum=sum+i
    print("\nSum of odd numbers is :",sum)
n=int(input("Enter the last value :"))
evensum(n)
```

```
Enter the last value :10
0 2 4 6 8
Sum of odd numbers is : 20
```

In [25]:
```
def sqcube(n):
    for i in range(1,n,1):
        print(i,end=" ")
        square=i*i
        cube=i*i*i
        print(square,cube)
n=int(input("Enter n value :"))
sqcube(n)
```

```
Enter n value :5
1 1 1
2 4 8
3 9 27
4 16 64
```

In [26]:
```
def table(n):
    for i in range(1,11,1):
        print(n,"x",i,"=",n*i)
n=int(input("Enter a number :"))
table(n)
```

```
Enter a number :2
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
```

In [32]:
```
def fact(n):
    fact=1
    for i in range(1,n+1):
        fact=fact*i
    print("Factorial=",fact)
n=int(input("Enter a number :"))
fact(n)
```

```
Enter a number :5
Factorial= 120
```

In [37]:
```
def count(n):
    count=0
    for i in range(1,n+1,1):
        if(n%i==0):
            count=count+1
    if(count==2):
        print("prime number")
    else:
        print("Not a prime number")
n=int(input("Enter a value :"))
count(n)
```

```
Enter a value :3
prime number
```

In [43]:
```
def factor(n):
    print("Factors=")
    for i in range(1,n,1):
        if(n%i==0):
            print(i)
n=int(input("Enter a number")
factor(n)
```

```
  File "<ipython-input-43-6800d97a89e6>", line 7
    factor(n)
         ^
SyntaxError: invalid syntax
```

In [46]:
```
def sum(n):
    count=0
    while(n>0):
        x=n%10
        count=count+x
        n=n//10
    print("sum=",count)
n=int(input("Enter a number :"))
sum(n)
```

```
Enter a number :12345
sum= 15
```

In [47]:
```
def rev(n):
    rev=0
    while(n>0):
        x=n%10
        rev=rev*10+x
        n=n//10
    print("Reversed no=",rev)
n=int(input("Enter a number :"))
rev(n)
```

```
Enter a number :963
Reversed no= 369
```

In [48]:
```
def strong(n):
    y=n
    sum=0
    while(n>0):
        fact=1
        x=n%10
        for i in range(1,x+1,1):
            fact=fact*i
        sum=sum+fact
        n=n//10
    if(y==sum):
        print("Strong number")
    else:
        print("Not a strong number")
n=int(input("Enter a number :"))
strong(n)
```

```
Enter a number :145
Strong number
```

In [49]:
```
def ncount(n):
    count=0
    while(n>0):
        x=n%10
        count=count+1
        n=n//10
    print("count=",count)
n=int(input("Enter a number :"))
ncount(n)
```

```
Enter a number :45632
count= 5
```

In [50]:
```
def pfactors(n):
    print("The prime factors are")
    for i in range(2,n+1,1):
        c=0
        if(n%i==0):
            for j in range(1,i+1,1):
                if(i%j==0):
                    c=c+1
            if(c==2):
                print(i)
n=int(input("Enter a number :"))
pfactors(n)
```

```
Enter a number :6
The prime factors are
2
3
```

In [51]:
```
def nfactors(n):
    print("The factors are")
    for i in range(1,n,1):
        if(n%i==0):
            print(i)
n=int(input("Enter a number :"))
nfactors(n)
```

```
Enter a number :9
The factors are
1
3
```

In [53]:
```
def pallindrome(n):
    rev=0
    y=n
    while(n>0):
        x=n%10
        rev=rev*10+x
        n=n//10
    if(y==rev):
        print("Pallindrome")
    else:
        print("Not a pallindrome")
n=int(input("Enter a number :"))
pallindrome(n)
```

```
Enter a number :121
Pallindrome
```

In [54]:
```
def perfect(n):
    y=n
    sum=0
    for i in range(1,n,1):
        if(n%i==0):
            sum=sum+i
    if(y==sum):
        print("Perfect number")
    else:
        print("Not a perfect number")
n=int(input("Enter a number :"))
perfect(n)
```

```
Enter a number :6
Perfect number
```

In [55]:
```
def sos(n,m):
    sum=0
    for i in range(n,m+1,1):
        sq=i*i
        sum=sum+sq
    print("The sum of squares=",sum)
n=int(input("Enter initial range :"))
m=int(input("Enter final range :"))
sos(n,m)
```

```
Enter initial range :1
Enter final range :10
The sum of squares= 385
```

In [56]:
```
def soc(n,m):
    sum=0
    for i in range(n,m+1,1):
        c=i*i*i
        sum=sum+c
    print("The sum of squares=",sum)
n=int(input("Enter initial range :"))
m=int(input("Enter final range :"))
soc(n,m)
```

```
Enter initial range :1
Enter final range :3
The sum of squares= 36
```

In [57]:
```
def pn(n):
    for i in range(2,n,1):
        c=0
        for j in range(1,i+1,1):
            if(i%j==0):
                c=c+1
        if(c==2):
            print(i)
n=int(input("Enter initial range :"))
pn(n)
```

```
Enter initial range :20
2
3
5
7
11
13
17
19
```

In [61]:
```
def rc(n,m):
    for i in range(1,101,1):
        if((i%n)==0 and (i%m)==0):
            print(i,end=" ")
n=int(input("Enter initial range :"))
m=int(input("Enter final range :"))
rc(n,m)
```

```
Enter initial range :2
Enter final range :3
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96
```

In [62]:
```
def rc(n,m):
    for i in range(1,101,1):
        if((i%n)!=0 and (i%m)!=0):
            print(i,end=" ")
n=int(input("Enter initial range :"))
m=int(input("Enter final range :"))
rc(n,m)
```

```
Enter initial range :2
Enter final range :3
1 5 7 11 13 17 19 23 25 29 31 35 37 41 43 47 49 53 55 59 61 65 67 71 73 77 79
83 85 89 91 95 97
```

In [*]:
```
def amstrong(n):
    y=n
    sum=0
    count=0
    tem=n
    while(n>0):
        z=n%10
        sum=sum+pow(z,count)
        y=y//10
    print("sum=",sum)
    if(tem==sum):
        print("Amstrong number")
    else:
        print("Not an amstrong number")
n=int(input("Enter a number :"))
amstrong(n)
```

```
Enter a number :9474
```

In [ ]: