```
a=20
b=40
print(a==b)
print(a!=b)
print(a>=b)
print(a<=b)
print(a>b)
print(a<b)
```

```
False
True
False
True
False
True
```

```
r=20
pi=3.14
Area=pi*r*r
print(Area)
```

```
1256.0
```

```
a=20
b=10
print(a+b)
print(a-b)
print(a*b)
print(a/b)
print(a//b)
print(a%b)
```

```
30
10
200
2.0
2
0
```

```
a=10
b=20
print(a<b and b>15)
```

```
True
```

```
a=20
b=35
print(a>b or b<15)
```

```
False
```

```
a=10
b=20
print(not a>b)
```

```
True
```

```
print ("Hello\nPython")
```

```
Hello
Python
```

```
print("Python", "Java", sep=", ")
print (" Welcome ", end="")
print(" User ")
```

```
Python, Java
 Welcome  User
```

```
a=10
b=45
c=20
d=30
largest =a
if b>largest:
    largest=b
if c>largest:
    largest=c
if d>largest:
    largest=d
print("The Largest Number is:", largest)
```

```
The Largest Number is: 45
```

```
marks=int(input("Enter marks:"))
if marks<0 or marks>100:
    print("Invalid Marks")
elif marks>=90:
    print ("Grade:A")
elif marks>=75:
    print ("Grade:B")
elif marks>=60:
    print ("Grade:C")
elif marks>=40:
    print ("Grade:D")
else:
    print("Fail")
```

```
Enter marks:35
Fail
```

```
a=int(input("Enter side a:"))
b=int(input("Enter side b:"))
c=int(input("Enter side c:"))
if a+b>c and b+c>a and c+a>b:
```

```python
    if a==b and b==c:
        print("Equilateral Triangle")
    elif a==b or b==c or a==c:
        print("Isosceles Triangle")
    else:
        print ("Scalene Triangle")
else:
    print("Invalid Triangle ")
```

```
Enter side a:6
Enter side b:4
Enter side c:6
Isosceles Triangle
```

```python
salary=int(input("Enter Salary:"))
experience=int(input("Enter years of experience:"))
if salary<20000 and experience>=2:
    bonus=a*10/100
    print("Bonus=", bonus)
    print("After Bonus=",a+bonus)
elif salary>=20000 and experience>=5:
    bonuss=a*20/100
    print("Bonuss=", bonuss)
    print ("After Bonus", a+bonuss)
else:
    print("No Bonus")
```

```
Enter Salary:25000
Enter years of experience:5
Bonuss= 5000.0
After Bonus 30000.0
```

```python
a=int(input("Enter a number:"))
if a %3==0 and a%5!=0:
    print("Special Number")
else:
    print ("Not a Special Number ")
```

```
Enter a number:11
Not a Special Number
```

```python
hour=int(input("Enter hour(0-23) :"))
if hour>=0 and hour<=23:
    if hour>=5 and hour<=11:
        print("Good Morning")
    if hour>=12 and hour<=16:
        print("Good Afternoon ")
    if hour>=17 and hour<=20:
        print("Good Evening")
    else:
        print("Good Night")
```

```
Enter hour(0-23) :00
Good Night
```

```
age=int(input("Enter age:"))
_3D=int(input("Is a 3D movie:"))
if age<13:
    price=150
elif age>=13 and age<=59:
    price=250
else :
    price=200
if _3D==1:
    price+=50
else:
    price+=0
print("Ticket Price:", price)
```

```
Enter age:45
Is a 3D movie:1
Ticket Price: 300
```

```
attendance=float(input("Enter attendance percentage: "))
mc=int(input("Medical certificate (1=yes, 0=no): "))

if attendance>=75:
    print("Allowed")
elif attendance>=60 or attendance<75 and mc==1:
    print("Allowed")
else:
    print("Not Allowed")
```

```
Enter attendance percentage: 80
Medical certificate (1=yes, 0=no): 1
Allowed
```

```
bill=int(input("Enter bill:"))
prime=int(input("Prime member:"))
discount=0
if bill>=5000:
    discount=bill*20/100
elif bill>=2000 or bill<=4999:
    discount=bill*10/100

if prime==1:
    discount+=bill*5/100
else:
    discount+=0
final_amount=bill-discount
print ("Final Amount:", final_amount)
```

```
Enter bill:5000
Prime member:1
Final Amount: 3750.0
```

```
battery=int(input("Enter battery:"))
isCharging=int(input ("Is Charging:"))
if isCharging==1:
    print("Charging ")
elif battery<=20:
```

```
    print ("Low Battery")
elif battery>=21 and battery<=80:
    print ("Normal Battery")
else:
    print ("Full Battery")
```

```
Enter battery:85
Is Charging:1
Charging
```

```
age=int(input ("Enter age:"))
testPassed=int(input("Driving test Passesd:"))
if age>=18 and testPassed==1:
    print("Eligible")
elif age>=60 and testPassed==0:
    print("Eligible")
else:
    print("Not Eligible")
```

```
Enter age:12
Driving test Passesd:1
Not Eligible
```

```
amount=int(input("Enter Amount:"))
isGold=int(input("Is User a Gold Member:"))
distance=float(input("Enter Distance:"))
if distance>10:
    print("Delivery Charged")
elif amount>=500 or isGold==1:
    print ("Free Delivery ")
else:
    print(" Delivery Charged")
```

```
Enter Amount:600
Is User a Gold Member:0
Enter Distance:8
Free Delivery
```

```
salary=int(input("Enter Salary:"))
creditScore=int(input("Enter Credit Score:"))
if salary>=50000:
    print("Loan Approved ")
elif salary>=30000 and creditScore>=700:
    print ("Loan Approved")
else:
    print ("Loan Rejected")
```

```
Enter Salary:75000
Enter Credit Score:1
Loan Approved
```

```
units=int(input ("Enter units:"))
if units<=100:
    bill=units*2
elif units<=200:
    bill=(100*2)+(units-100) *3
```

```
    else:
        bill=(100*2)+(100*3)+(units-200)*5
    print("Final bill amount:₹",bill)
```

```
Enter units:450
Final bill amount:₹ 1750
```

```
marks=int(input("Enter Marks:"))
income=float(input("Enter Income:"))
singleParent=int(input("Is Single Parent:"))
if marks>=85:
    if singleParent==1 or income<500000:
        print ("Scholarship Allowed")
    else:
        print ("Scholarship Not Allowed")
else:
    print ("Scholarship Not Allowed")
```

```
Enter Marks:90
Enter Income:400000
Is Single Parent:1
Scholarship Allowed
```

```
theory=int(input("Enter theory:"))
practical=int(input("Enter practical:"))
if theory>=40 and practical>=40:
    print ("Pass")
elif theory+practical>=100:
    print ("Pass")
else:
    print("Faill")
```

```
Enter theory:65
Enter practical:55
Pass
```

```
isWeekend=int(input ("Weekend:"))
daysStayed=int(input ("Days Stayed:"))
if isWeekend==1:
    price=4000
else:
    price=3000
total=price*daysStayed
if daysStayed>3:
    total=total*15/100
print ("Final Bill:₹",total)
```

```
Weekend:0
Days Stayed:5
Final Bill:₹ 2250.0
```

```
score=int(input("Enter Score:"))
isPremiun=int(input("Premium Pass:"))
userCheat=int(input("User Cheated:"))
if userCheat==1:
    print("Access is denied")
```

```
    elif score>=100 or isPremiun==1:
        print("Level Unlocked ")
    else:
        print ("Level Locked")
```

```
Enter Score:500
Premium Pass:0
User Cheated:0
Level Unlocked
```

```
dataUsed=float(input("Enter dataUsed:"))
hasUnlimitedPlan=int(input("Unlimited Plan:"))
isRoaming=int(input("Roaming:"))
if isRoaming==1:
    print("Unlimited plan does not work")
elif dataUsed>=2 or hasUnlimitedPlan==1:
    print ("Unlimited data")
else:
    print ("Limited Data")
```

```
Enter dataUsed:1.5
Unlimited Plan:1
Roaming:0
Unlimited data
```

```
idValid=int(input ("Is ID Valid:"))
fingerprint=int(input("Fingerprint Matched:"))
faceScan=int(input("FaceScan Matched:"))
isHoliday=int(input("Is it a Holiday:"))
if isHoliday==1:
    print("Entry is Denied ")
elif idValid==1 and fingerprint==1 or faceScan==1:
    print("Entry Allowed")
else:
    print("Entry is Denied")
```

```
Is ID Valid:1
Fingerprint Matched:0
FaceScan Matched:0
Is it a Holiday:0
Entry is Denied
```

```
averageRating=float(input("Enter Rating:"))
isEditorChoice=int(input ("Editors Choice:"))
if isEditorChoice==1:
    print ("Recommended")
elif averageRating>=8.5:
    print ("Excellent")
elif averageRating>=6.5 or averageRating<=8.4:
    print ("Good ")
else:
    print ("Average")
```

```
Enter Rating:8
Editors Choice:0
Good
```

```
n=int(input("Natural Numbers:"))
i=1
while i<=n:
    print(i)
    i+=1
```

```
Natural Numbers:10
1
2
3
4
5
6
7
8
9
10
```

```
i=2
while i<=10:
    print(i)
    i+=2
```

```
2
4
6
8
10
```

```
n=int(input("Enter n:"))
i=1
sum=0
while i<=n:
    print(i)
    sum+=i
    i+=1
print(sum)
```

```
Enter n:5
1
2
3
4
5
15
```

```
for i in range(1, 11):
    print(i)
```

```
1
2
3
4
```

```
5
6
7
8
9
10
```

```
for i in range(3, 31, 3):
    print(i)
```
```
3
6
9
12
15
18
21
24
27
30
```

```
for i in range(10, 0,-1):
    print(i)
```
```
10
9
8
7
6
5
4
3
2
1
```

```
start=2
end=10
for i in range(start,end):
    print(i)
```
```
2
3
4
5
6
7
8
9
```

```
array=['a','b','c','d']
for song in array:
    print(song)
```

a
b
c
d

```
num=356
print(num%10)
```

6

```
num=356
print (num//10)
```

35

```
n=3456
count=0
while n>0:
    n=n//10
    count+=1
print(count)
```

4

```
n=3456
print(n%10)
print(3456//10)
print(345//10)
print(34//10)
print(3//10)
count=0
while n>0:
    n=n//10
    count+=1
print(count)
```

6
345
34
3
0
4

```
num = 345
sum = 0

while num > 0:
    n = num % 10
    sum = sum + n
    num = num // 10

print("Sum of digits:", sum)
```

Sum of digits: 12

```
n=356
sum=0
while n>0:
  sum+=n%10
  n=n//10
print(sum)
```

14

```
n= 1234
rev = 0

while n > 0:
    d = n % 10
    rev = rev *10+d
    n = n// 10

print("Reverse of the number:", rev)
```

Reverse of the number: 4321

```
def greet():
    print("Welcome to Python Programming ")

greet()
```

Welcome to Python Programming

```
def add(a, b):
    return a+b

add(5, 6)
add(8, 9)
add(15, 7)
```

22

```
def square(n) :
    print(n**2)

square(5)
```

25

```python
def factorial(n) :
    if n==0:
        return 1
    else:
        return n*factorial(n-1)

print(factorial (4))
```

24

```python
def show():
    x=10
    print(x)
show()
```

10

```python
x=20
def display():
    print(x)
display()
```

20