

```
""#1
print("Welcome Python")
#2
a=int(input("enter value of a "))
b=int(input("enter value of b "))
if(a<b):
    print(a, " is smaller")
elif(a>b):
    print(b, " is smaller")
else:
    print( "Both are same")
#3
```

```
a=int(input("enter value of a "))
b=int(input("enter value of b "))
c=int(input("enter value of c "))
if(a<b):
    if(a<c):
        print(a, " is smaller")
    else:
        print(c, " is smaller")
else:
    if(b<c):
        print(b, " is smaller ")
    else:
        print(c, " is smaller")
```

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#4
x=int(input("enter value of x "))
n=int(input("enter value of n "))
f=p=1
while(p<=n):
    f=f*x
    p=p+1
print("x exponent n=", f)
```

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#5
x=int(input("enter value of x "))
n=int(input("enter value of n "))
s=p=0
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```
while(p<=n):
    f=pow(x,p)
    print(f,end=" ")
    s=s+f
    p=p+1
print("sum=", s)
```

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#6
n=int(input("Enter any number "))
p=0# perfect 1+2+3=6
for i in range(1,n):
    if(n%i==0):
        p=p+i
if(n==p):
    print(n," is perfect")
r=m=n
a=rev=0
while(m>0):
    r=m%10
    a=a+r*r*r
    m=m//10
    rev=rev*10+r
if(n==rev):
    print(n," is palindrome")
if(n==a):
    print(n," is armstrong")
#7
n=int(input("Enter any number "))
p=0# prime
for i in range(1,n+1):
    if(n%i==0):
        p=p+1
if(p==2):
    print(n," is prime ")
else:
    print(n, "is composite")

#8
n=int(input("Enter how many terms of fibonaci series"))
a=-1
b=1

for i in range(1,n+1):
    c=a+b
    print(c,end=" ")
    a=b
    b=c
#9
a=int(input("enter a "))
b=int(input("enter b"))
lcm=1
for x in range(1,a*b+1):
    if((x%a==0) and (x%b==0)):
        lcm=x
        break;

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```
hcf=a*b/lcm
print("lcm=",lcm,"hcf=",hcf)
```

```
#10
s=input("Enter any string")
v=c=u=l=a=
0
vowel="aeiouAEIOU"
for x in s:
    if(x.islower()):
        l=l+1
    if(x.isupper()):
        u=u+1
    if(x.isalpha()):
        a=a+1
    if(x in vowel):
        v=v+1
print(" No of Consonents=",a-v)
print(" No of Vowels=",v)
print(" No of Upper case=",u)
print(" No of lower case=",l)
```

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#11

s=input("Enter any string")
t=s
l=len(s)
p=r=""
for x in range(l-1,-1,-1):
    r=r+s[x]
    if(s[x].isupper()):
        p=p+s[x].lower()

    elif(s[x].islower()):
        p=p+s[x].upper()
print("reverse=",r)
if(s==r):
    print(s, " is palindrome")
else:
    print(s, " is not palindrome")
print(p)
```

```
#12
l=[]
for i in range(1,11):
    n=int(input("enter any number"))
    l.append(n)
print("list -", l)
```

```

print("largest =", max(l))
#13
s=5
l=[]
for i in range(0,s):
    n=int(input("enter any number"))
    l.append(n)
print("list -", l)
for i in range(0,s-1,2):
    t=l[i]
    l[i]=l[i+1]
    l[i+1]=t

```

```

print("new list =", l)

```

```

#14
s=5
l=[]
for i in range(0,s):
    n=int(input("enter any number"))
    l.append(n)
x=int(input("Enter number to search"))
print("list -", l)
pos=-1
for i in range(0,s):
    if(x==l[i]):
        pos=i
        break
if(pos>-1):
    print("Element at ",pos)
else:
    print(" not found")

```

```

#15
s=int(input("how many numbers"))

l=[]
for i in range(0,s):
    n=int(input("enter any number"))
    l.append(n)

```

```

print("nos are ", l)

```

```

for i in range(0,s):
    p=0
    n=l[i]

```

```

while(n>0):
    r=n%10
    p=p+r**3
    n=n//10

if(p==l[i]):
    if(i==0):
        min=max=p
    if(p>max):
        max=p
    if(p<min):
        min=p
print(p)
print(max,min)

#16
n = int(input("Enter number of students: "))

result = {}

for i in range(n):
    print("Enter Details of student No.", i+1)

    rno = int(input("Roll No: "))
    name = input("Name: ")
    marks = int(input("Marks: "))

    result[rno] = [name, marks]

print(result)

# Display names of students who have got marks more than 75

for student in result:
    if result[student][1] > 75:
        print(result[student][0])

#17

f=open( "12ab.txt",'r')

data=f.readlines()
for line in data:
    words=line.split()
    print()
    for x in words:
        print(x,"#",end="")

```

#18

```
f=open("12ab.txt",mode="r")
data=f.read()
print(data)
vowels="aeiouAEIOU"
v=c=u=l=0
for x in data:
    if(x.isupper()):
        u=u+1
    if(x.islower()):
        l=l+1
    if(x.isalpha()):
        c=c+1
    if(x in vowels):
        v=v+1
print("Number of Vowels=",v)
print("Number of Consonents=",c-v)
print("Number of Uppercase =",u)
print("Number of lower case=",l)
'''
```

#19

```
import pickle
def writea():
    f=open("12my12.dat",mode="wb")

    n = int(input("Enter number of students: "))
    result = {}
    for i in range(n):
        print("Enter Details of student No.", i+1)
        rno = int(input("Roll No: "))
        name = input("Name: ")
        marks = int(input("Marks: "))
        result[rno] = [name, marks]
    #print(result)
    print("tell=",f.tell())
    pickle.dump(result,f)
    print("tell=",f.tell())
    f.close()
def search():
    f=open("12my12.dat",mode="rb")
    d={}
    rs=int(input("Enter roll number to search"))

    d=pickle.load(f)
    flag=0
    for i in d:
        print("tell=",f.tell())
```

```
    if(i==rs):
        print(d[i])
        flag=1
    if(flag==0):
        print("not found")
x=input("W-Write all\n S-search ")
if(x=='W'):
    writea()
if(x=='S'):
    search()
'''
```