```
#1
a = 50
convert =bin(a)
print (convert)
 0b110010
#2
a1= str (input('Enter expression'))
print('ans', eval(a1))

  Enter expression78*8-32+1
  ans 593
#3
from cgi import print_arguments
import math
s1 = (3 + 4)*5
print('(3 + 4)(5)', s1)
n=int(input('enter value of n for equation'))
p2 = (n*(n-1))/2
print('n(n-1/2',p2)
r=int(input('enter value of r for equation'))
s3=4*(math.pi)*r**2
print('value:',s3)
s=int(input('Enter the value to be put in cos:'))
p= int(input('Enter the value to be put in sin:'))
q1=math.sqrt(r*(math.cos(s))**2 + r*(math.sin(p))**2)
print('value of root((r(coss)^2) )+ r(sinp)^2)',q1)
print ('enter value of y2,y1,x2,x1')
y2= int(input('y2:'))
y1= int(input('y1:'))
x2= int(input('x2'))
x1= int(input('x1:'))
e=(y2-y1)/(x2-x1)
print('value of equation (y2-y1)/(x2-x1)',e)
(3 + 4)(5) 35
enter value of n for equation2
n(n-1/2 1.0
enter value of r for equation6
value: 452.3893421169302
Enter the value to be put in cos:45
Enter the value to be put in sin:90
value of root((r(coss)^2) )+ r(sinp)^2) 2.5399132581224233
enter value of y2,y1,x2,x1
y2:10
y1:6
x220
x1:10
value of equation (y2-y1)/(x2-x1) 0.4
#4
print('numbers genrated for range(5)')
for i in range(5):
    print (i)
print(' number genrated for  range(3,10)')
```

```
for i in range(3,10):
     print(i)
print('numbers generated for range(4,13,3)')
for i in range (4,13,3):
    print(i)
print('number generated for range(15,5,-2)')
for i in range (15,5,-2):
    print(i)
print (' number generated for range(5,3)')
for i in range (5,3):
    print(i)
numbers genrated for range(5)
0
1
2
3
4
 number genrated for  range(3,10)
3
4
5
6
7
8
9
numbers generated for range(4,13,3)
4
7
10
number generated for range(15,5,-2)
15
13
11
9
7
 number generted for range(5,3)

#5
h = eval(input("How many hydrogen atoms? "))
c = eval(input("Carbon? "))
o = eval(input("Oxygen? "))
total = (h * 1.00794) + (c * 12.0107) + (o * 15.9994)
print("The total molecular weight is", total)
```