1) 'armstrong number program

num **=** int(input('enter the nuber'))

s **=** 0

temp **=** num

**while** temp &amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;gt; 0:

c **=** temp **%** 10

s **+=** c**\*\***3

temp **//=** 10

**if** s **==** num:

print('armstrong number')

**else**:

print('not an armstrong number')

**2)calculate program**

**def** add(a,b):

**return** a**+**b

**def** sub(a,b):

**return** a**-**b

**def** prod(a,b):

**return** a **\*** b

**def** div(a,b):

**return** a **/** b

**def** si(p, r, t):

**return** (p**\***r**\***t) **/** 100

**def** ci(p, r ,t):

**return** p **\*** pow((1 **+** r**/**100), t)

**def** sqr(num):

**return** num**\*\***2

**def** sqrt(num)

**return** num**\*\***0.5

print(add(10,15))

3) leaf year programme

year **=** int(input('enter year'))

**if** year **%** 400 **==** 0:

  print('it is a leap year')

**elif** year **%** 4 **==** 0:

  print('it is a leap year')

**elif** year **%** 100 **==** 0:

  print('not a leap year')

**else**:

  print('not a leap year')

**4)Prime Number Program**

nunum **=** int(input('enter number'))

**for** i range(2, num):

**if**&amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;amp;nbsp; num**%** i **==** 0:

       print('**not** a prime number")

**break**

**else**:

       print('prime number')

**break**