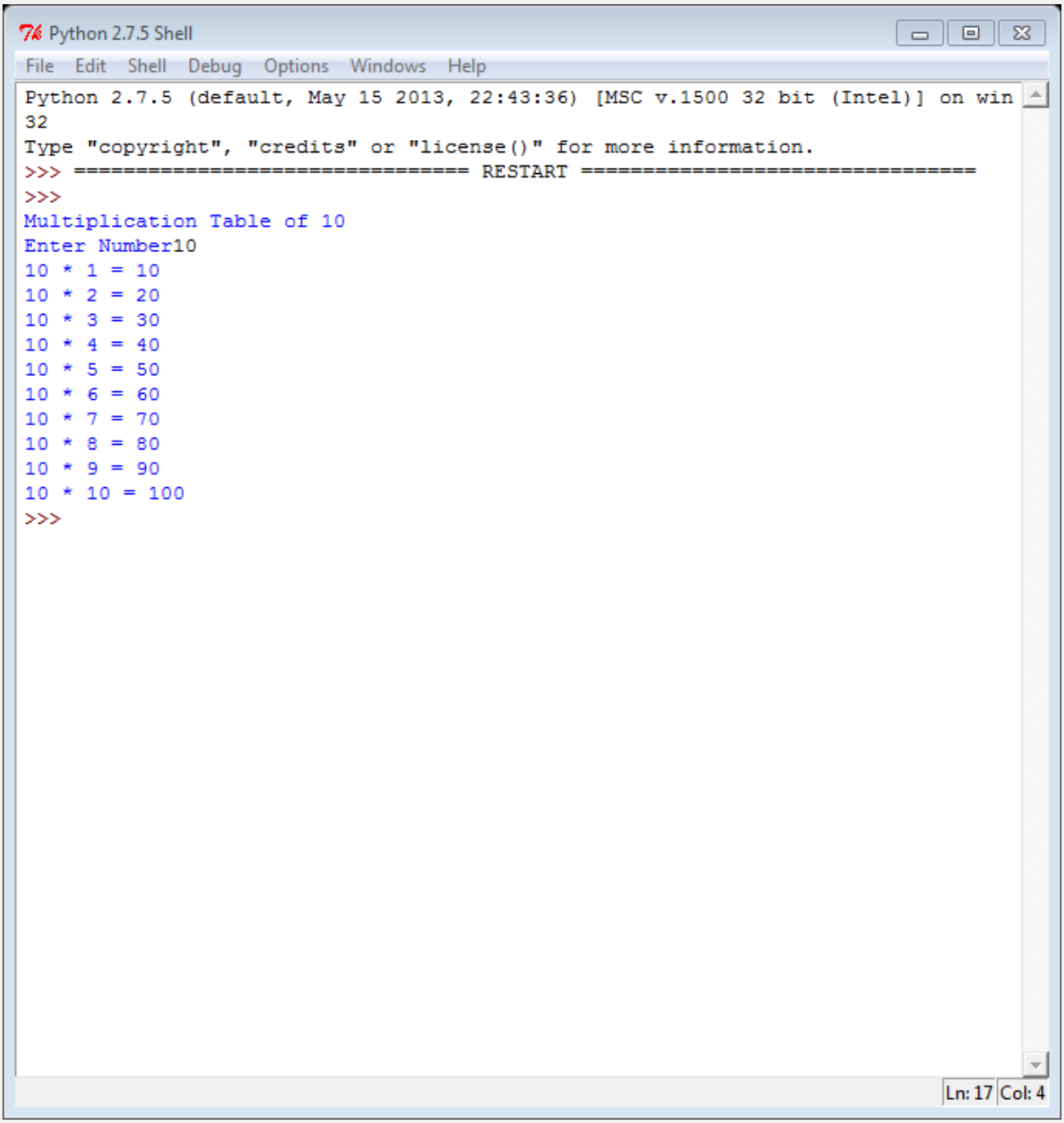
1) AIM-

To Print the Multiplication Table of 10.

SOURCE CODE-

```
print "Multiplication Table of 10"
n=input("Enter Number")
for i in range(1,n+1):
    print 10,"*",i,"=",10*i
```

OUTPUT-


Python 2.7.5 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.5 (default, May 15 2013, 22:43:36) [MSC v.1500 32 bit (Intel)] on win
32
Type "copyright", "credits" or "license()" for more information.
>>> ========== RESTART ==========
>>>
Multiplication Table of 10
Enter Number10
10 * 1 = 10
10 * 2 = 20
10 * 3 = 30
10 * 4 = 40
10 * 5 = 50
10 * 6 = 60
10 * 7 = 70
10 * 8 = 80
10 * 9 = 90
10 * 10 = 100
>>>
Ln: 17 Col: 4

2) AIM-

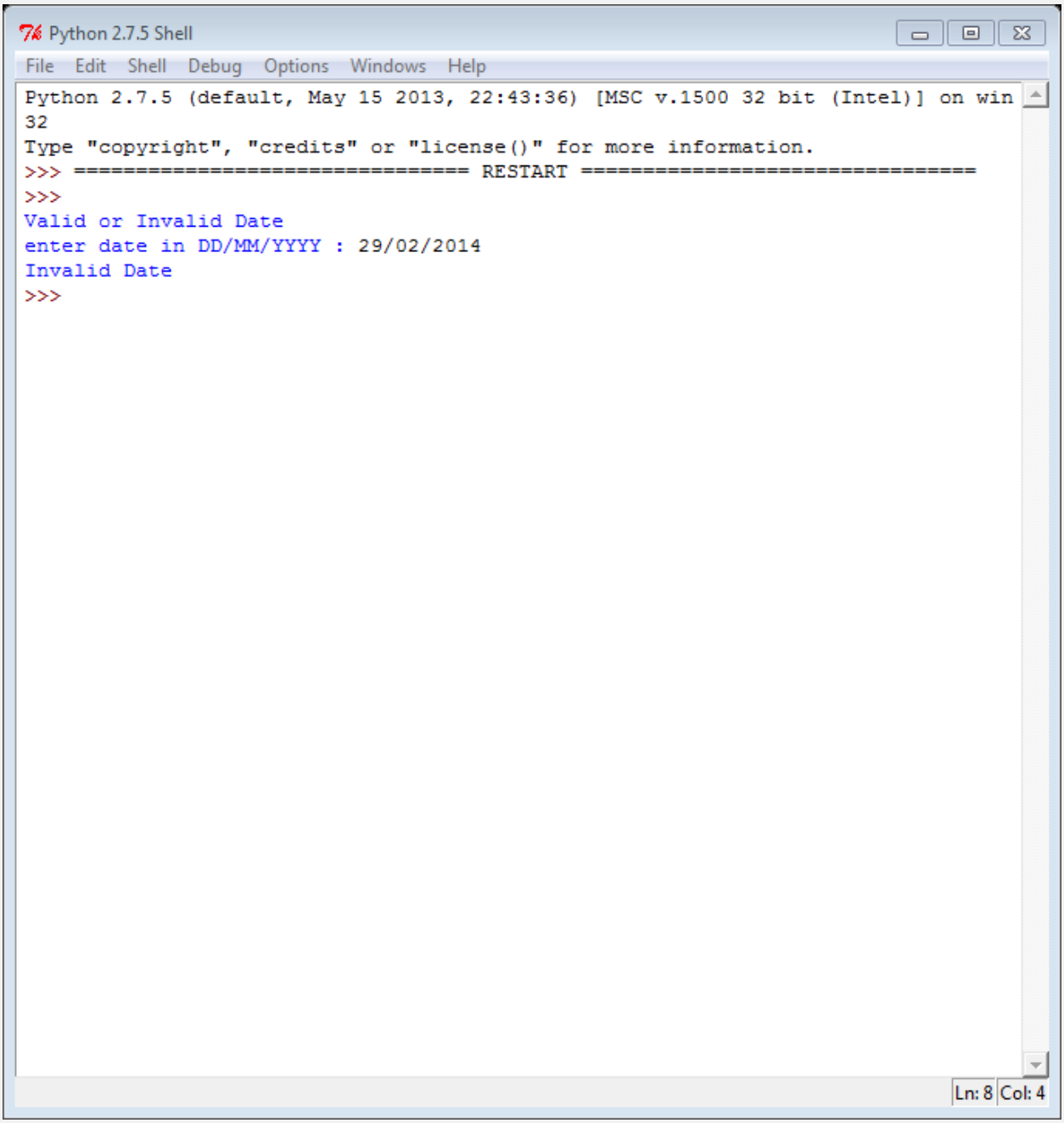
To Check whether a given Date is valid or not.

SOURCE CODE-

```
print "Valid or Invalid Date"
x=raw_input("enter date in DD/MM/YYYY : ")
if (len(x)!=10):
    print "enter in DD/MM/YYYY format"
else:
    d1=x[0]
    d2=x[1]
    date=10*int(d1)+int(d2)
    m1=x[3]
    m2=x[4]
    month=10*int(m1)+int(m2)
    y1=x[6]
    y2=x[7]
    y3=x[8]
    y4=x[9]
    year=1000*int(y1)+100*int(y2)+10*int(y3)+int(y4)
    a=[1,3,5,7,8,10,12]
    b=[4,6,9,11]
    if (month<=12 and month>=1):
        if (month in a):
            if (date>=1 and date<=31):
                print "Valid Date"
            else:
                print "Invalid Date"
        elif (month in b):
            if (date>=1 and date <=30):
```

```
            print "Valid Date"
        else:
            print "Invalid Date"
    elif (month==2):
        if (year%4==0 and date>=1 and date<=29):
            print "Valid Date"
        elif (year%4!=0 and date>=1 and date<=28):
            print "The date is valid."
        else:
            print "Invalid Date"
else:
    print "Invalid Date"
```

OUTPUT-


Python 2.7.5 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.5 (default, May 15 2013, 22:43:36) [MSC v.1500 32 bit (Intel)] on win
32
Type "copyright", "credits" or "license()" for more information.
>>> ========== RESTART ==========
>>>
Valid or Invalid Date
enter date in DD/MM/YYYY : 29/02/2014
Invalid Date
>>>
Ln: 8 Col: 4

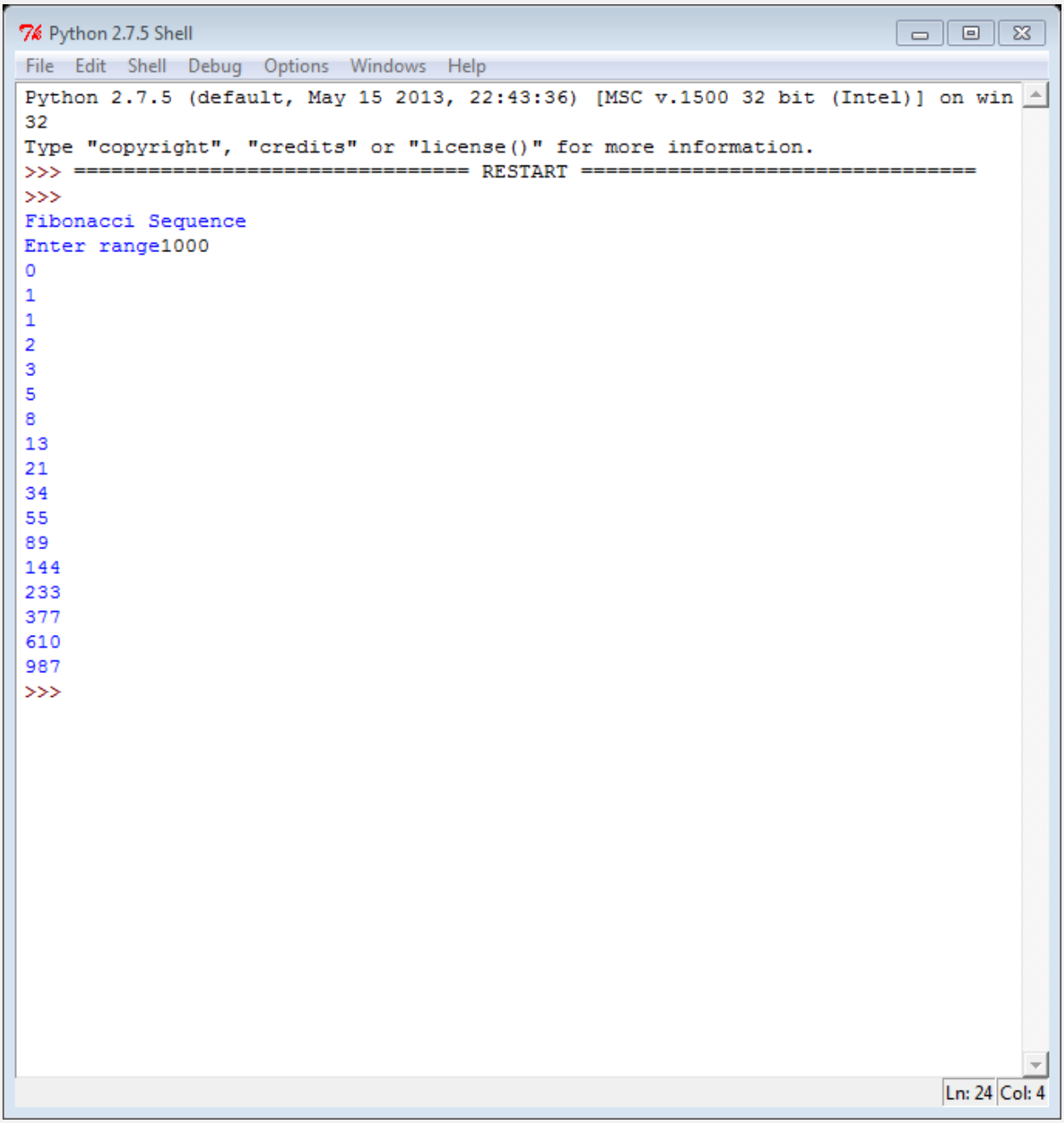
3) AIM-

To Print First n Fibonacci Numbers using while loop.

SOURCE CODE-

```
print "Fibonacci Sequence"
x=0
y=1
n=input("Enter range")
print x
while (x<=n):
    y=x+y
    x=y-x
    if (x<=n):
        print x
```

OUTPUT-


Python 2.7.5 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.5 (default, May 15 2013, 22:43:36) [MSC v.1500 32 bit (Intel)] on win
32
Type "copyright", "credits" or "license()" for more information.
>>> ========== RESTART ==========
>>>
Fibonacci Sequence
Enter range1000
0
1
1
2
3
5
8
13
21
34
55
89
144
233
377
610
987
>>>
Ln: 24 Col: 4

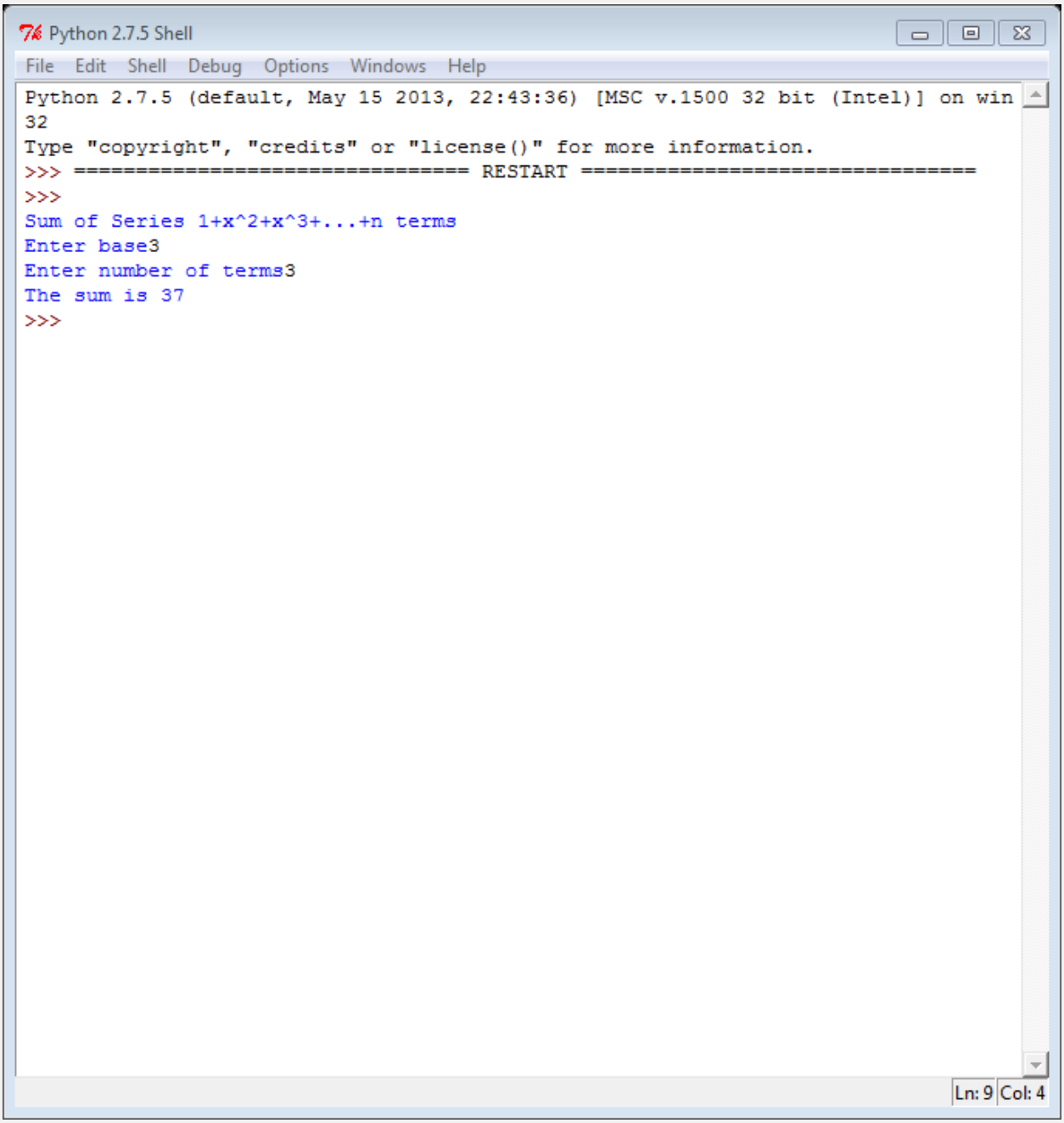
4) AIM-

To Print sum of Series $1+x^2+x^3+...+n$ terms.

SOURCE CODE-

```
print "Sum of Series 1+x^2+x^3+...+n terms"
x=input("Enter base")
y=input("Enter number of terms")
z=1
for i in range(2,y+1):
    z+=(x**i)
print "The sum is", z
```

OUTPUT-


Python 2.7.5 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.5 (default, May 15 2013, 22:43:36) [MSC v.1500 32 bit (Intel)] on win
32
Type "copyright", "credits" or "license()" for more information.
>>> ========== RESTART ==========
>>>
Sum of Series 1+x^2+x^3+...+n terms
Enter base3
Enter number of terms3
The sum is 37
>>>
Ln: 9 Col: 4

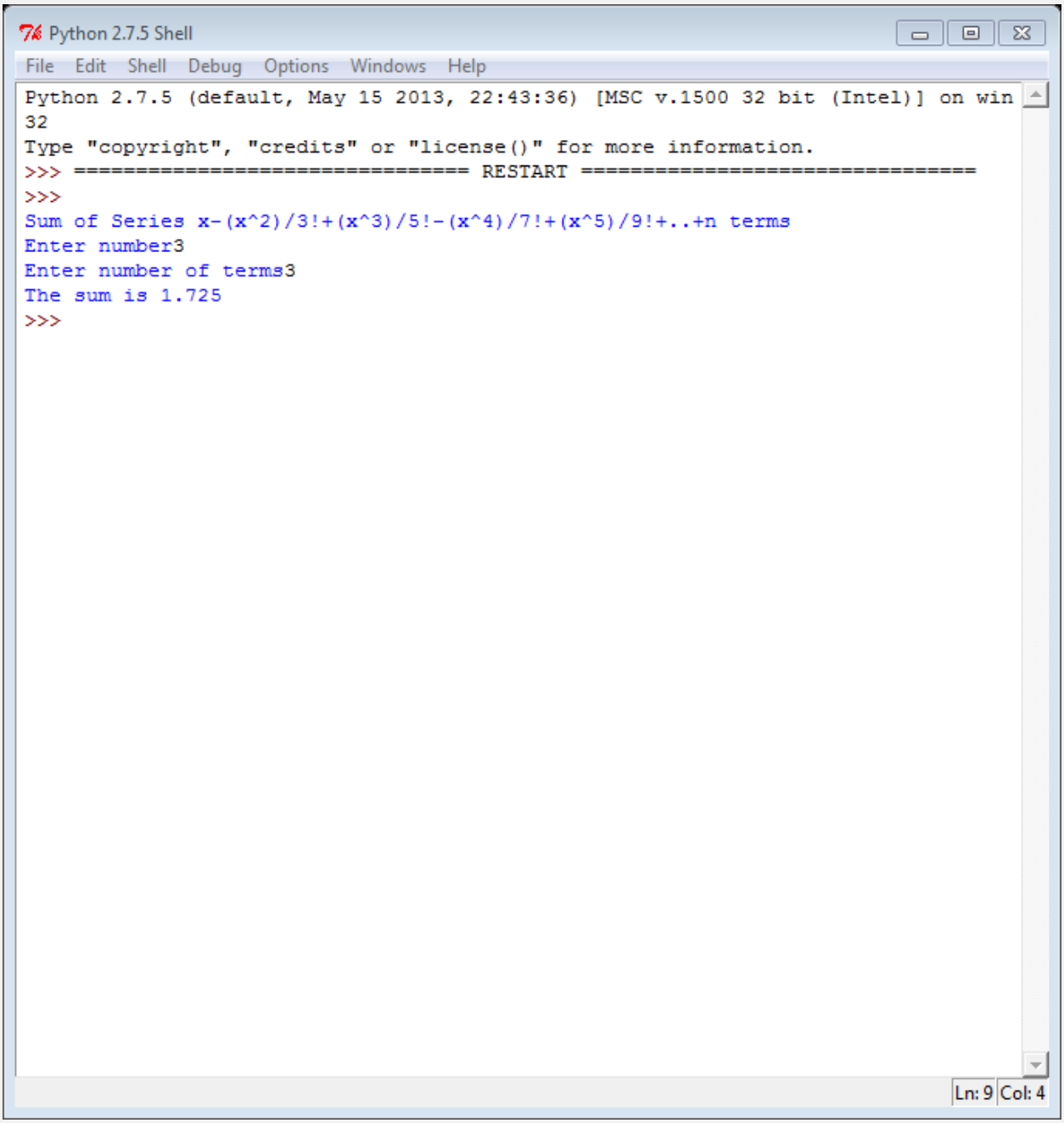
5) AIM-

To Print Sum of Series $x-(x^2)/3!+(x^3)/5!-(x^4)/7!+(x^5)/9!+..+n$ terms.

SOURCE CODE-

```
print "Sum of Series x-(x^2)/3!+(x^3)/5!-(x^4)/7!+(x^5)/9!+..+n terms"
s=0
a=1
x=input("Enter number")
n=input("Enter number of terms")
for i in range(1,n+1):
    k=1
    for j in range(1,i+a):
        k=k*j
    if (i%2==0):
        s=s-(float(x**i)/k)
    else:
        s=s+(float(x**i)/k)
    a+=1
print "The sum is",s
```

OUTPUT-


Python 2.7.5 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.5 (default, May 15 2013, 22:43:36) [MSC v.1500 32 bit (Intel)] on win
32
Type "copyright", "credits" or "license()" for more information.
>>> ========== RESTART ==========
>>>
Sum of Series x-(x^2)/3!+(x^3)/5!-(x^4)/7!+(x^5)/9!+..+n terms
Enter number3
Enter number of terms3
The sum is 1.725
>>>
Ln: 9 Col: 4

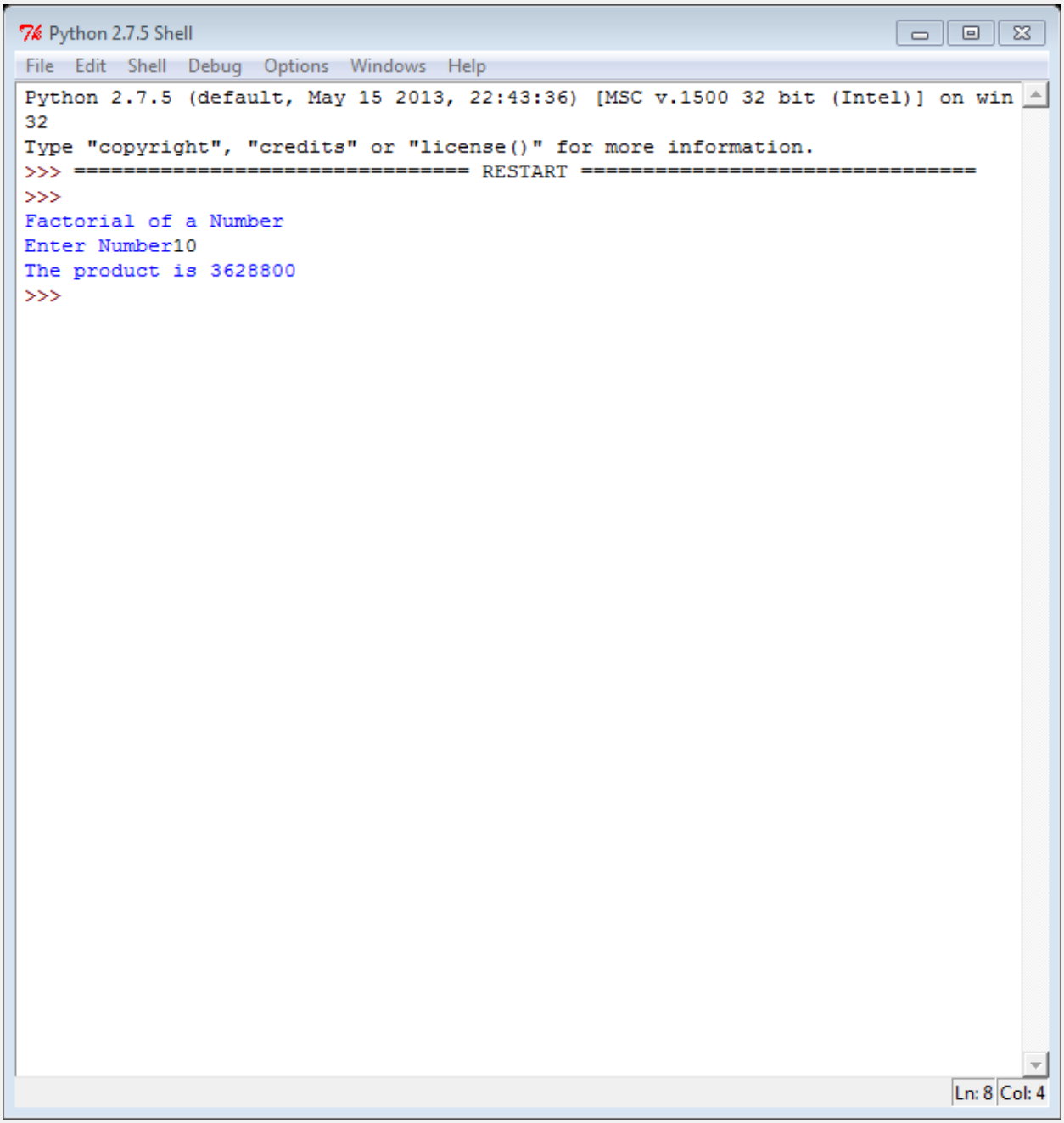
6) AIM-

To Print Factorial of a Number.

SOURCE CODE-

```
print "Factorial of a Number"
x=input("Enter Number")
fact=1
for i in range(1,x+1):
    fact=fact*i
print "The product is",fact
```

OUTPUT-


Python 2.7.5 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.5 (default, May 15 2013, 22:43:36) [MSC v.1500 32 bit (Intel)] on win
32
Type "copyright", "credits" or "license()" for more information.
>>> ========== RESTART ==========
>>>
Factorial of a Number
Enter Number10
The product is 3628800
>>>
Ln: 8 Col: 4

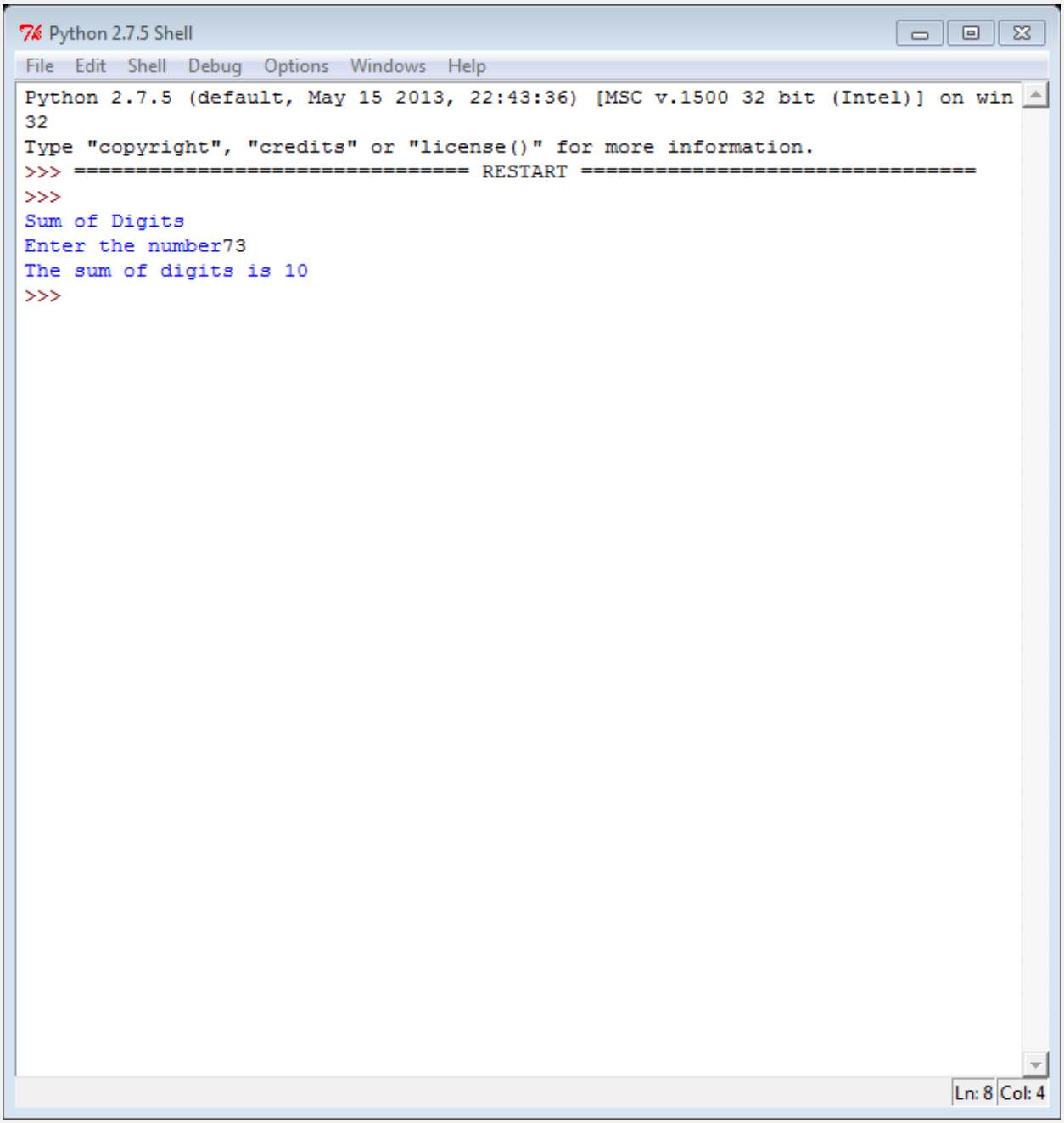
7) AIM-

To Print Sum of Digits.

SOURCE CODE-

```
print "Sum of Digits"
x=input("Enter the number")
s=0
while x>=1:
    k=x%10
    s+=k
    x=x/10
print "The sum of digits is",s
```

OUTPUT-


Python 2.7.5 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.5 (default, May 15 2013, 22:43:36) [MSC v.1500 32 bit (Intel)] on win
32
Type "copyright", "credits" or "license()" for more information.
>>> ========== RESTART ==========
>>>
Sum of Digits
Enter the number73
The sum of digits is 10
>>>
Ln: 8 Col: 4

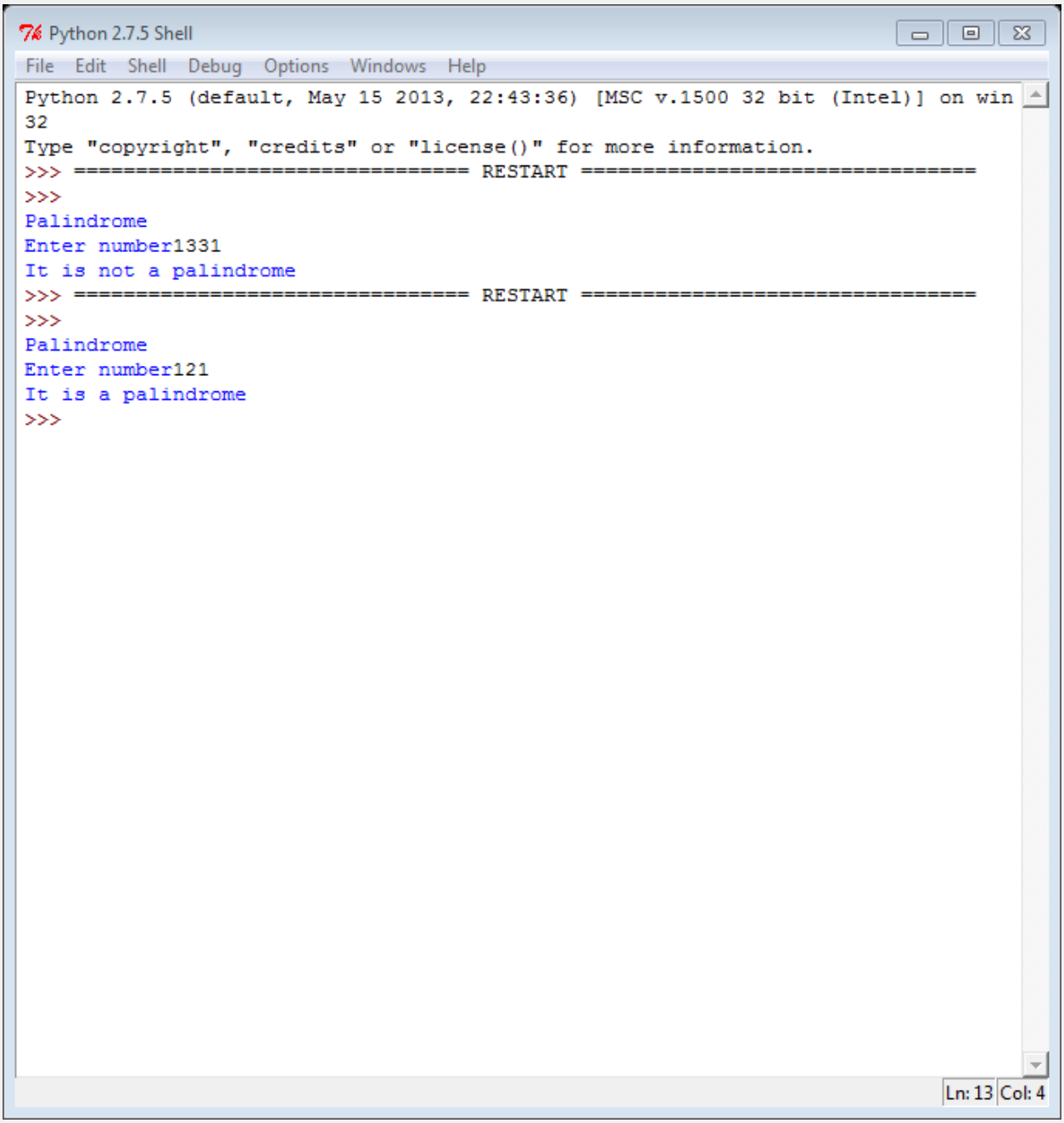
8) AIM-

To Check whether a Number is Palindrome or not.

SOURCE CODE-

```
print "Palindrome"
n=input("Enter number")
s=0
new=n
k=0
while(n>=1):
    r=n%10
    s=(s*10)+r
    n=n/10
    k+=1
if (s==new) and (k%2==1):
    print "It is a palindrome"
else:
    print "It is not a palindrome"
```

OUTPUT-


Python 2.7.5 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.5 (default, May 15 2013, 22:43:36) [MSC v.1500 32 bit (Intel)] on win
32
Type "copyright", "credits" or "license()" for more information.
>>> ========== RESTART ==========
>>>
Palindrome
Enter number1331
It is not a palindrome
>>> ========== RESTART ==========
>>>
Palindrome
Enter number121
It is a palindrome
>>>
Ln: 13 Col: 4

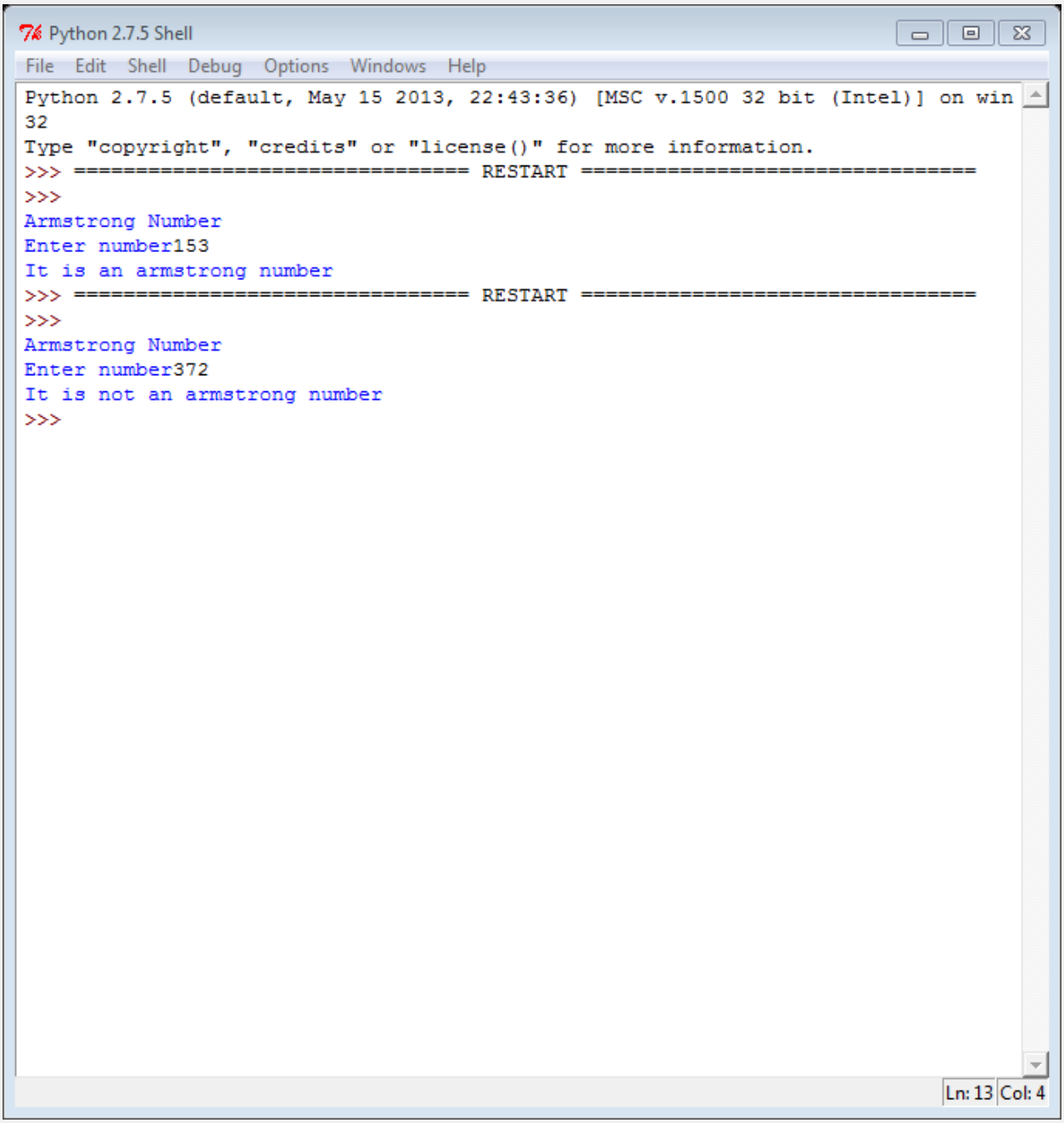
9) AIM-

To Check whether a Number is an Armstrong Number.

SOURCE CODE-

```
print "Armstrong Number"
n=input("Enter number")
s=0
new=n
while(n>=1):
    r=n%10
    s=s+(r**3)
    n=n/10
if (s==new):
    print "It is an armstrong number"
else:
    print "It is not an armstrong number"
```

OUTPUT-


Python 2.7.5 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.5 (default, May 15 2013, 22:43:36) [MSC v.1500 32 bit (Intel)] on win
32
Type "copyright", "credits" or "license()" for more information.
>>> ========== RESTART ==========
>>>
Armstrong Number
Enter number153
It is an armstrong number
>>> ========== RESTART ==========
>>>
Armstrong Number
Enter number372
It is not an armstrong number
>>>
Ln: 13 Col: 4

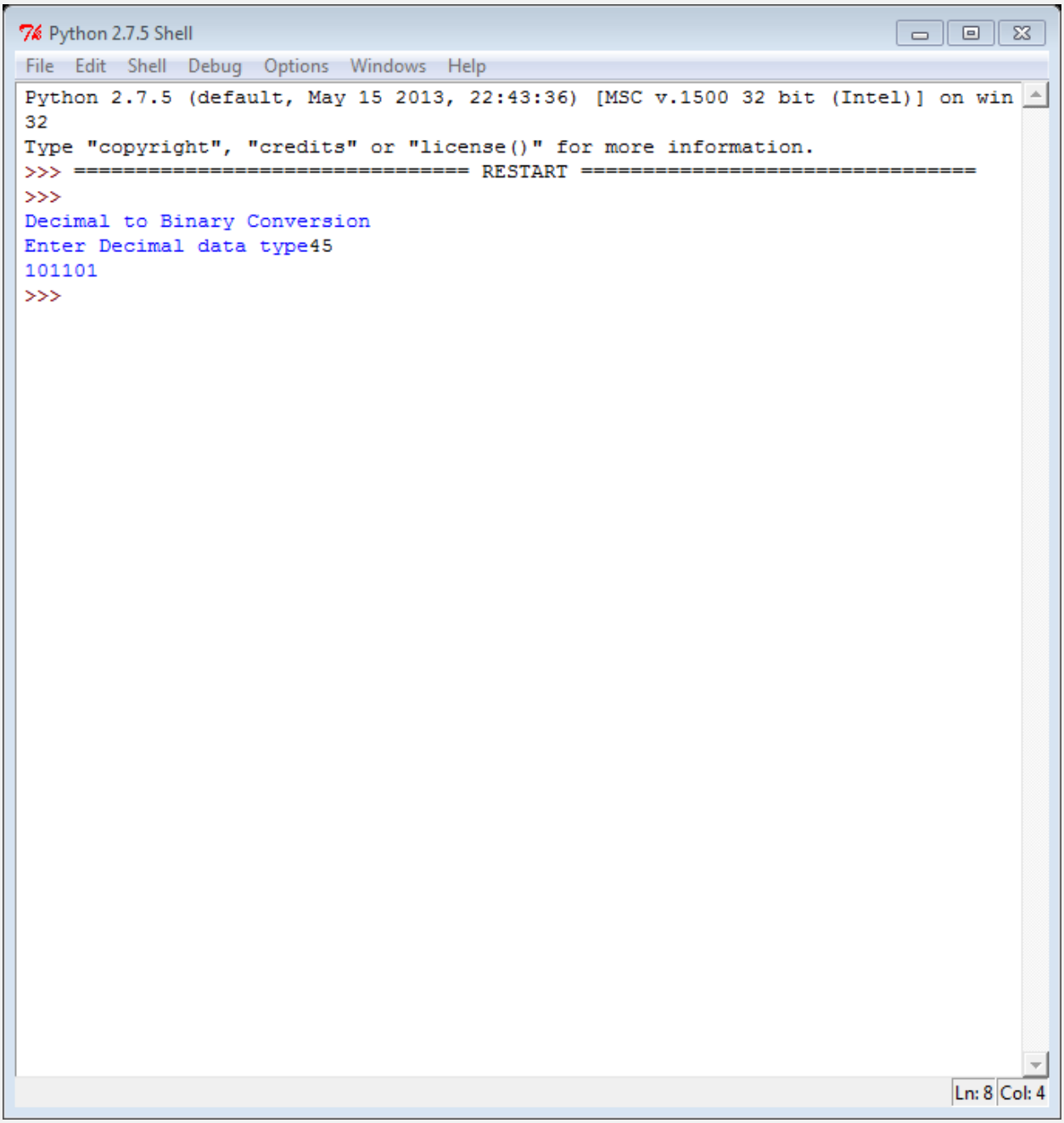
10) AIM-

Decimal to Binary Conversion.

SOURCE CODE-

```
print "Decimal to Binary Conversion"
n=input("Enter Decimal data type")
bn=0
k=0
while(n>0):
    r=n%2
    n=n/2
    bn=bn+(r*(10**k))
    k=k+1
print bn
```

OUTPUT-


Python 2.7.5 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.5 (default, May 15 2013, 22:43:36) [MSC v.1500 32 bit (Intel)] on win
32
Type "copyright", "credits" or "license()" for more information.
>>> ========== RESTART ==========
>>>
Decimal to Binary Conversion
Enter Decimal data type45
101101
>>>
Ln: 8 Col: 4

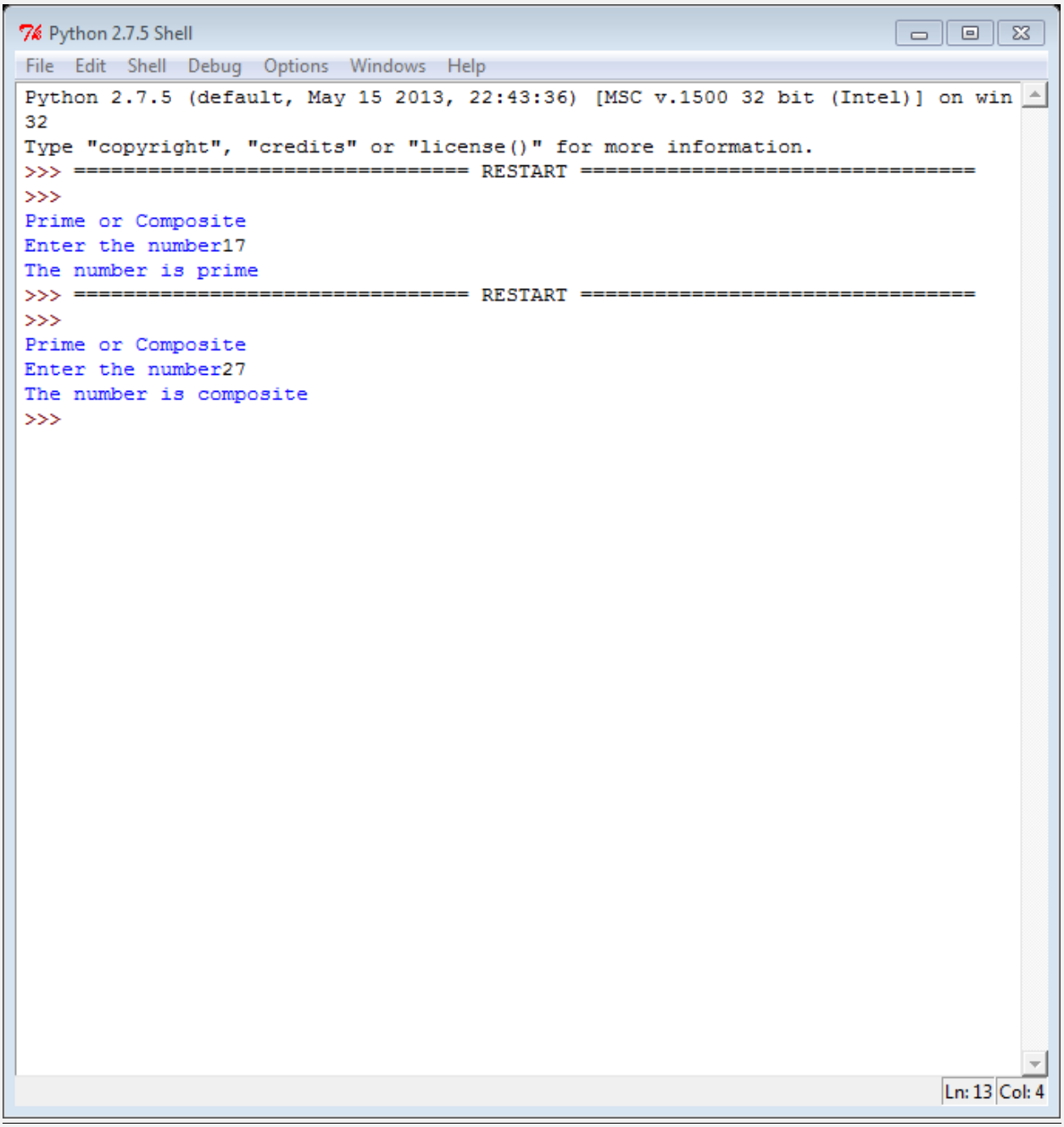
11) AIM-

To Check whether a Number is prime or not.

SOURCE CODE-

```
print "Prime or Composite"
n=input("Enter the number")
for i in range(2,n):
    if (n%i==0):
        print “The number is composite”
        break
else:
    print “The number is prime”
```

OUTPUT-


Python 2.7.5 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.5 (default, May 15 2013, 22:43:36) [MSC v.1500 32 bit (Intel)] on win
32
Type "copyright", "credits" or "license()" for more information.
>>> ========== RESTART ==========
>>>
Prime or Composite
Enter the number17
The number is prime
>>> ========== RESTART ==========
>>>
Prime or Composite
Enter the number27
The number is composite
>>>
Ln: 13 Col: 4

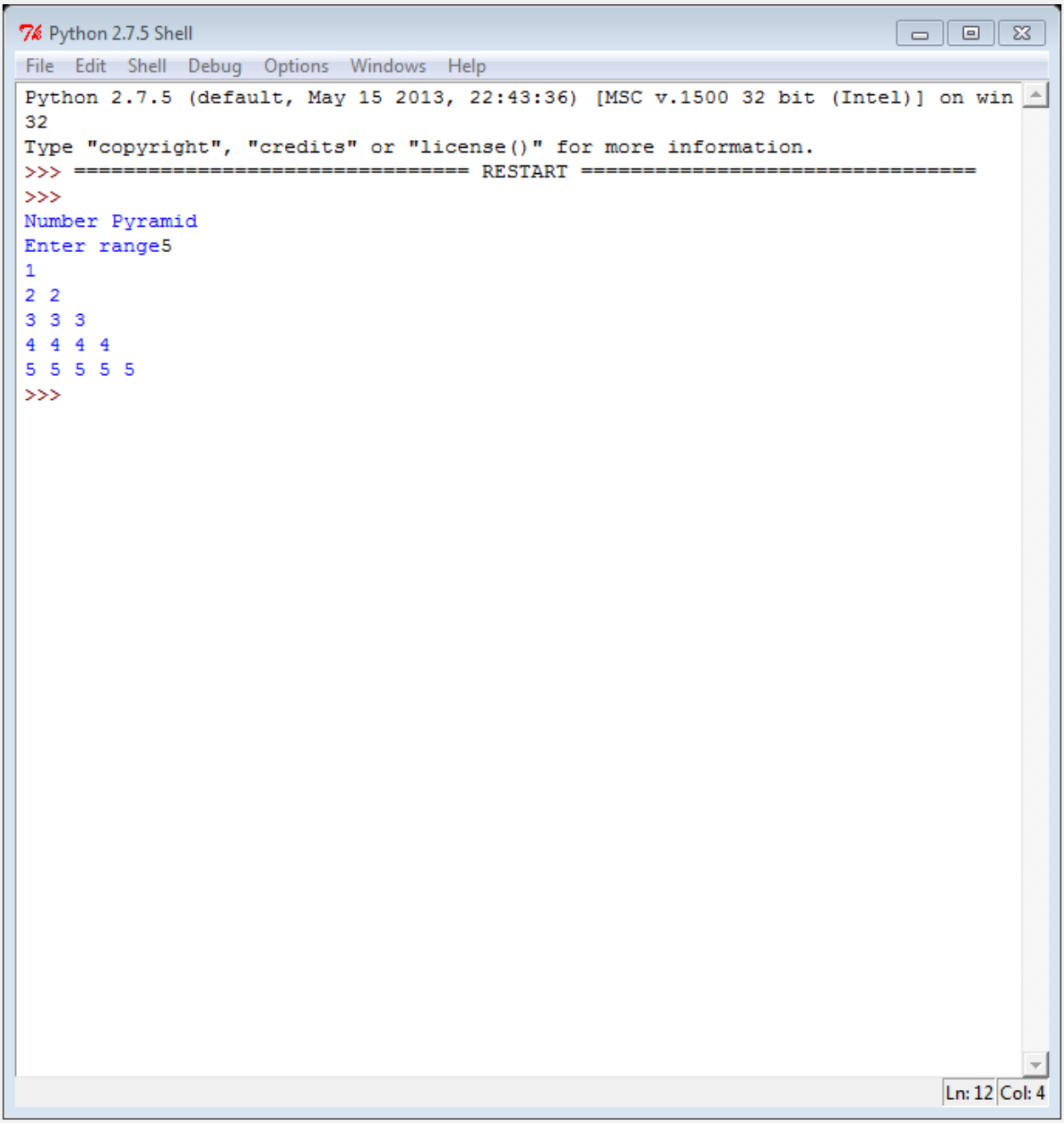
12) AIM-

To Print a Number Pyramid.

SOURCE CODE-

```
print "Number Pyramid"
n=input("Enter range")
for i in range(1,n+1):
    for j in range(1,i+1):
        print i,
    print
```

OUTPUT-


Python 2.7.5 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.5 (default, May 15 2013, 22:43:36) [MSC v.1500 32 bit (Intel)] on win
32
Type "copyright", "credits" or "license()" for more information.
>>> ========== RESTART ==========
>>>
Number Pyramid
Enter range5
1
2 2
3 3 3
4 4 4 4
5 5 5 5 5
>>>
Ln: 12 Col: 4

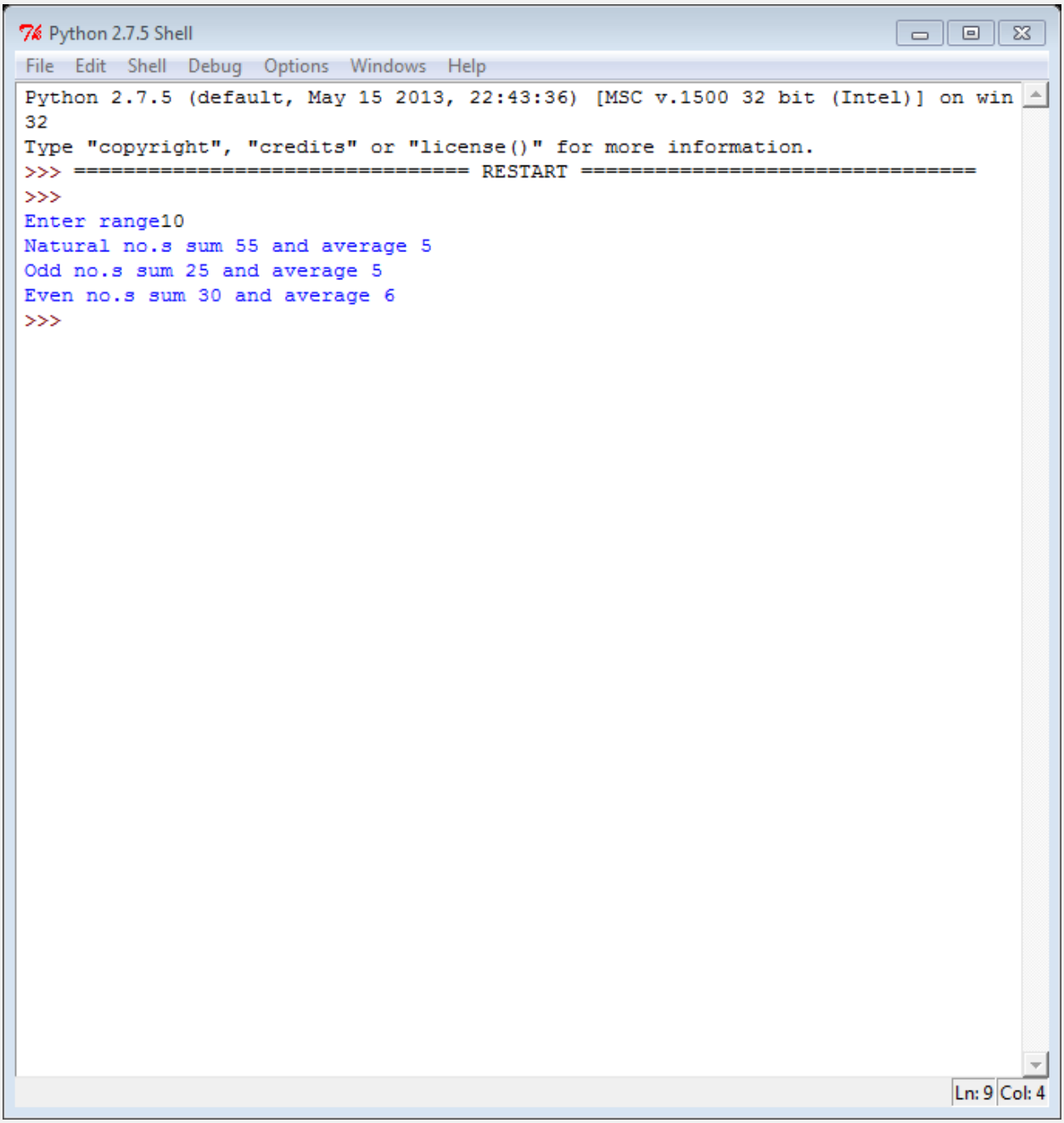
13) AIM-

To Calculate the Sum & Average of Odd & even Natural Numbers using user defined functions.

SOURCE CODE-

```
def sumavg(n):
    sumn=0
    even=0
    odd=0
    x=0
    o=0
    e=0
    for i in range(0,n+1):
        sumn=sumn+i
        x=x+1
        if(i%2==0):
            even=even+i
            e+=1
        if(i%2==1):
            odd=odd+i
            o+=1
    avg=sumn/x
    eavg=even/e
    oavg=odd/o
    print "Natural no.s sum",sumn,"and average",avg
    print "Odd no.s sum",odd,"and average",o
    print "Even no.s sum",even,"and average",e
n=input("Enter range")
sumavg(n)
```

OUTPUT-


Python 2.7.5 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.5 (default, May 15 2013, 22:43:36) [MSC v.1500 32 bit (Intel)] on win
32
Type "copyright", "credits" or "license()" for more information.
>>> ========== RESTART ==========
>>>
Enter range10
Natural no.s sum 55 and average 5
Odd no.s sum 25 and average 5
Even no.s sum 30 and average 6
>>>
Ln: 9 Col: 4

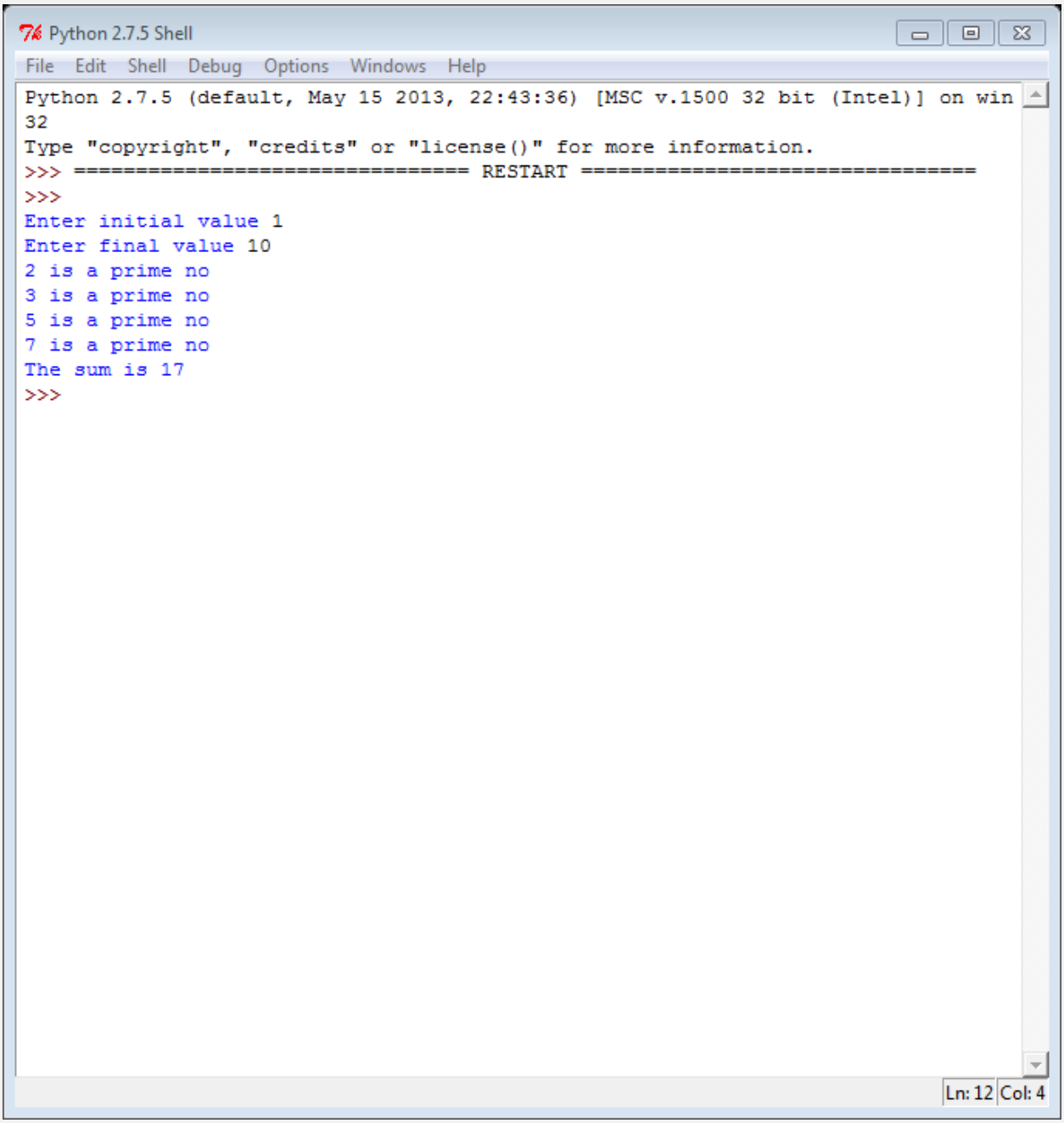
14) AIM-

Function to find the sum of prime numbers between two ranges.

SOURCE CODE-

```
def prime(x,y):
    n=0
    for i in range(x+1,y):
        for j in range(2,i):
            if (i%j==0):
                break
        else:
            print i,"is a prime no"
            n+=i
    print "The sum is",n
x=input("Enter initial value ")
y=input("Enter final value ")
prime(x,y)
```

OUTPUT-


Python 2.7.5 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.5 (default, May 15 2013, 22:43:36) [MSC v.1500 32 bit (Intel)] on win
32
Type "copyright", "credits" or "license()" for more information.
>>> ========== RESTART ==========
>>>
Enter initial value 1
Enter final value 10
2 is a prime no
3 is a prime no
5 is a prime no
7 is a prime no
The sum is 17
>>>
Ln: 12 Col: 4

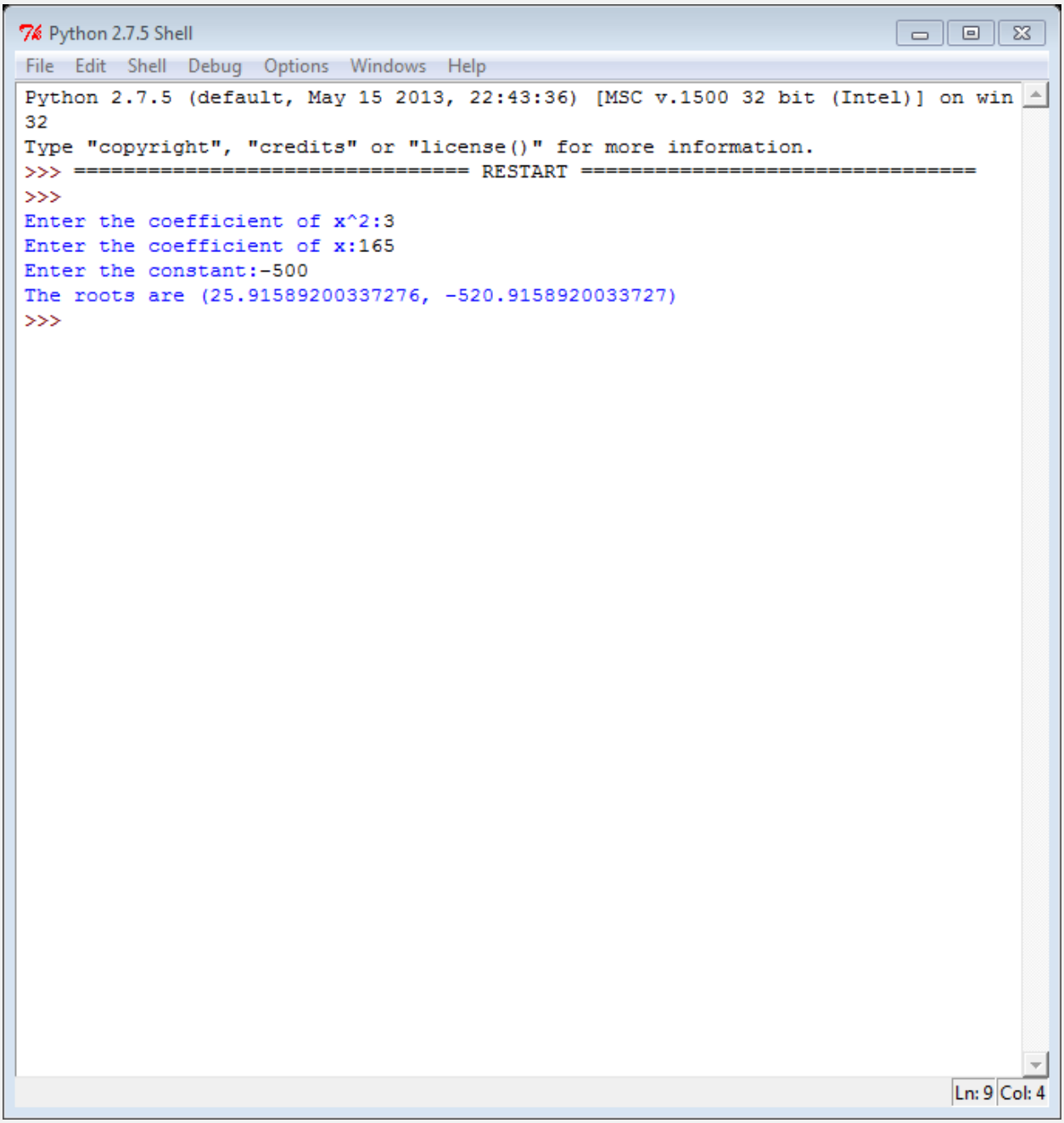
15) AIM-

Function to find the roots of a Quadratic Equation.

SOURCE CODE-

```
def quadroots(a,b,c):
    import math
    D=(b**2)-4*(a)*(c)
    root1=(-1*b+math.sqrt(D))/2*a
    root2=(-1*b-math.sqrt(D))/2*a
    return root1,root2
x=input("Enter the coefficient of x^2:")
y=input("Enter the coefficient of x:")
z=input("Enter the constant:")
print 'The roots are',quadroots(x,y,z)
```

OUTPUT-


Python 2.7.5 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.5 (default, May 15 2013, 22:43:36) [MSC v.1500 32 bit (Intel)] on win
32
Type "copyright", "credits" or "license()" for more information.
>>> ========== RESTART ==========
>>>
Enter the coefficient of x^2:3
Enter the coefficient of x:165
Enter the constant:-500
The roots are (25.91589200337276, -520.9158920033727)
>>>
Ln: 9 Col: 4

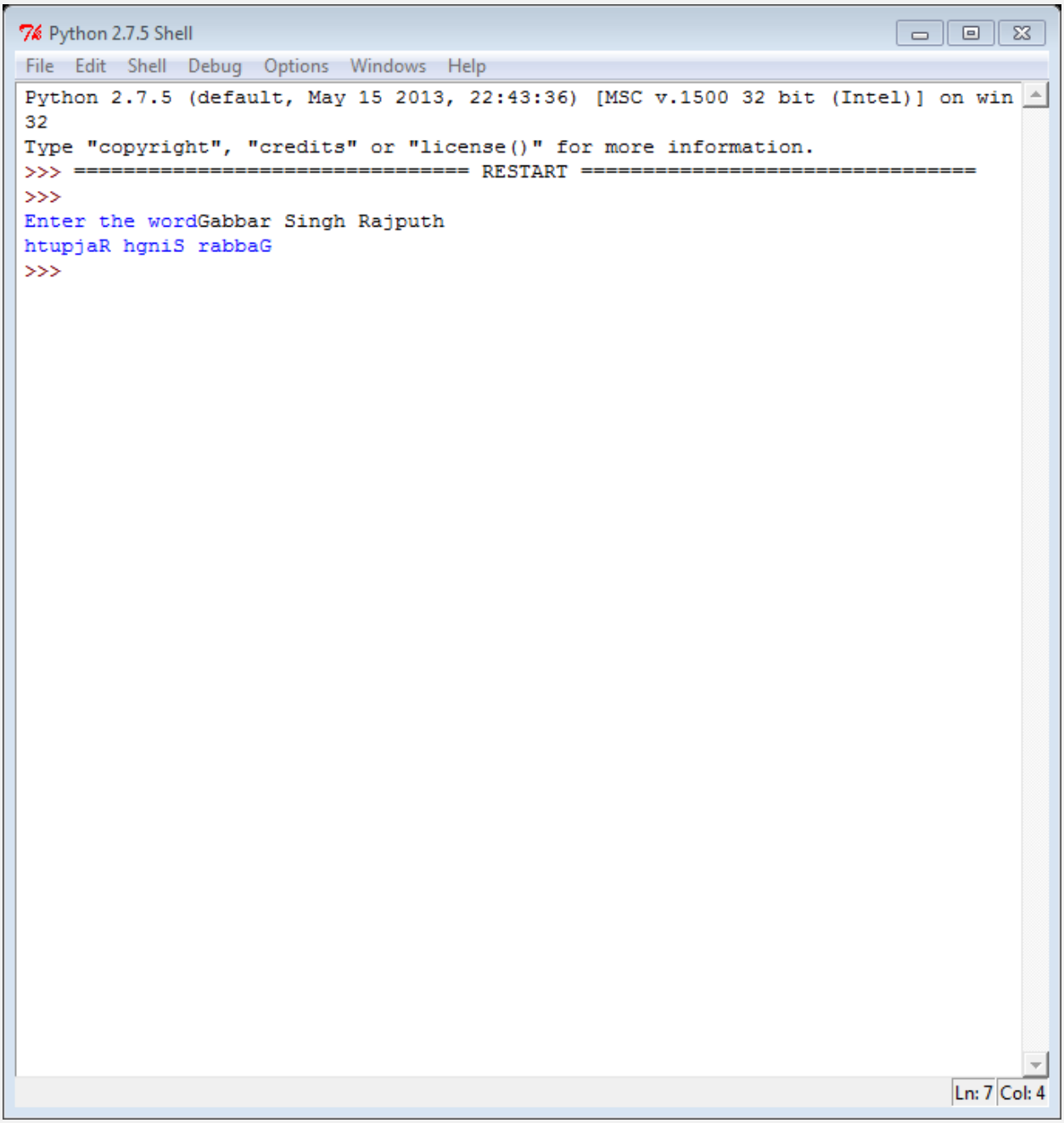
16) AIM-

To Print Reverse of a String.

SOURCE CODE-

```
def reverse(x):
    s=''
    for i in range(len(x)-1,-1,-1):
        s=s+x[i]
    return s
x=raw_input("Enter the word")
print reverse(x)
```

OUTPUT-


Python 2.7.5 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.5 (default, May 15 2013, 22:43:36) [MSC v.1500 32 bit (Intel)] on win
32
Type "copyright", "credits" or "license()" for more information.
>>> ========== RESTART ==========
>>>
Enter the wordGabbar Singh Rajputh
htupjaR hgniS rabbaG
>>>
Ln: 7 Col: 4

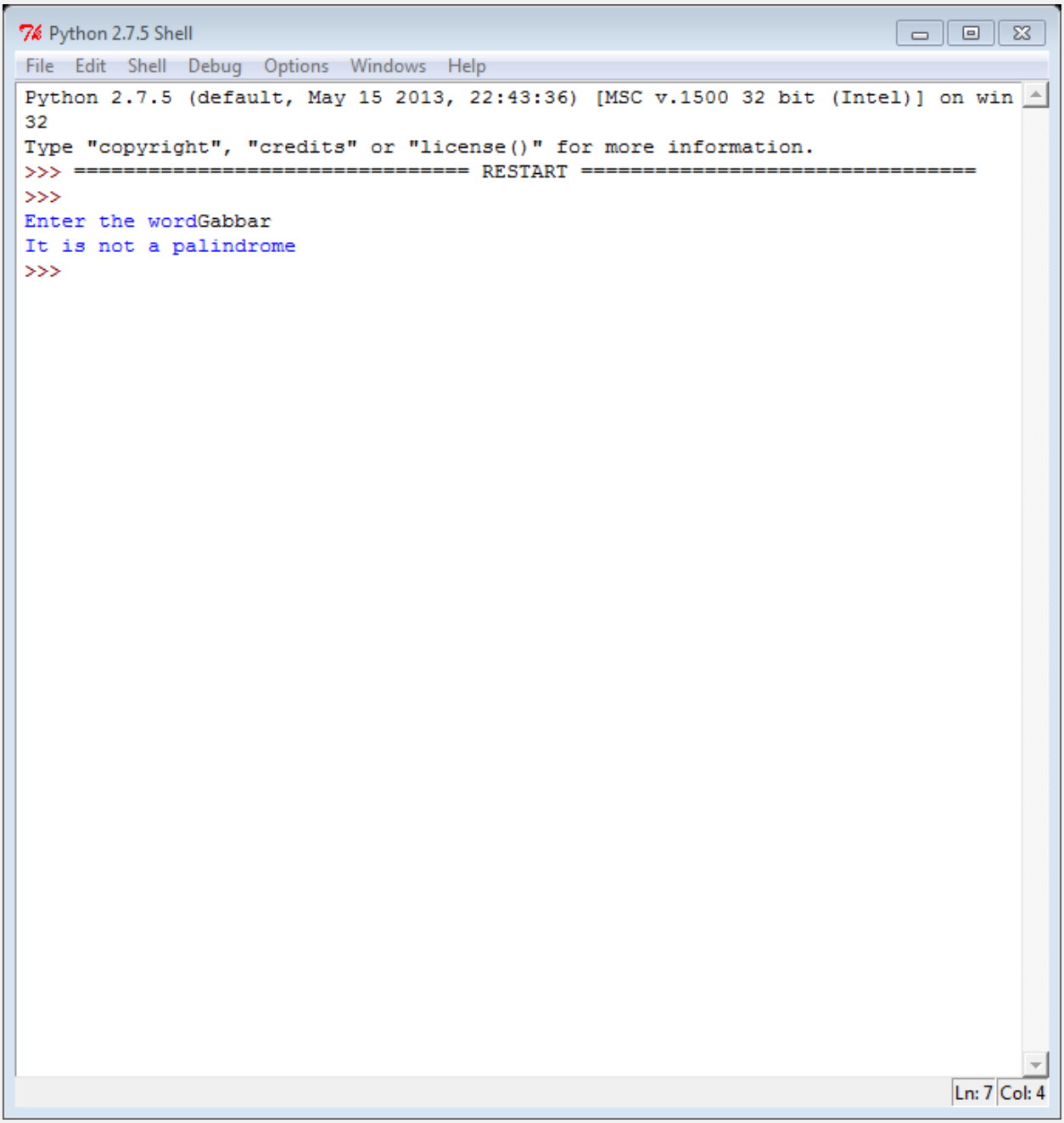
17) AIM-

To Check if a given string is palindrome or not.

SOURCE CODE-

```
def stringpalindrome(x):
    s=''
    for i in range(len(x)-1,-1,-1):
        s=s+x[i]
    if (s==x and (len(x)%2==1)):
        print "It is a palindrome"
    else:
        print "It is not a palindrome"
x=raw_input("Enter the word")
stringpalindrome(x)
```

OUTPUT-


Python 2.7.5 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.5 (default, May 15 2013, 22:43:36) [MSC v.1500 32 bit (Intel)] on win
32
Type "copyright", "credits" or "license()" for more information.
>>> ========== RESTART ==========
>>>
Enter the wordGabbar
It is not a palindrome
>>>
Ln: 7 Col: 4

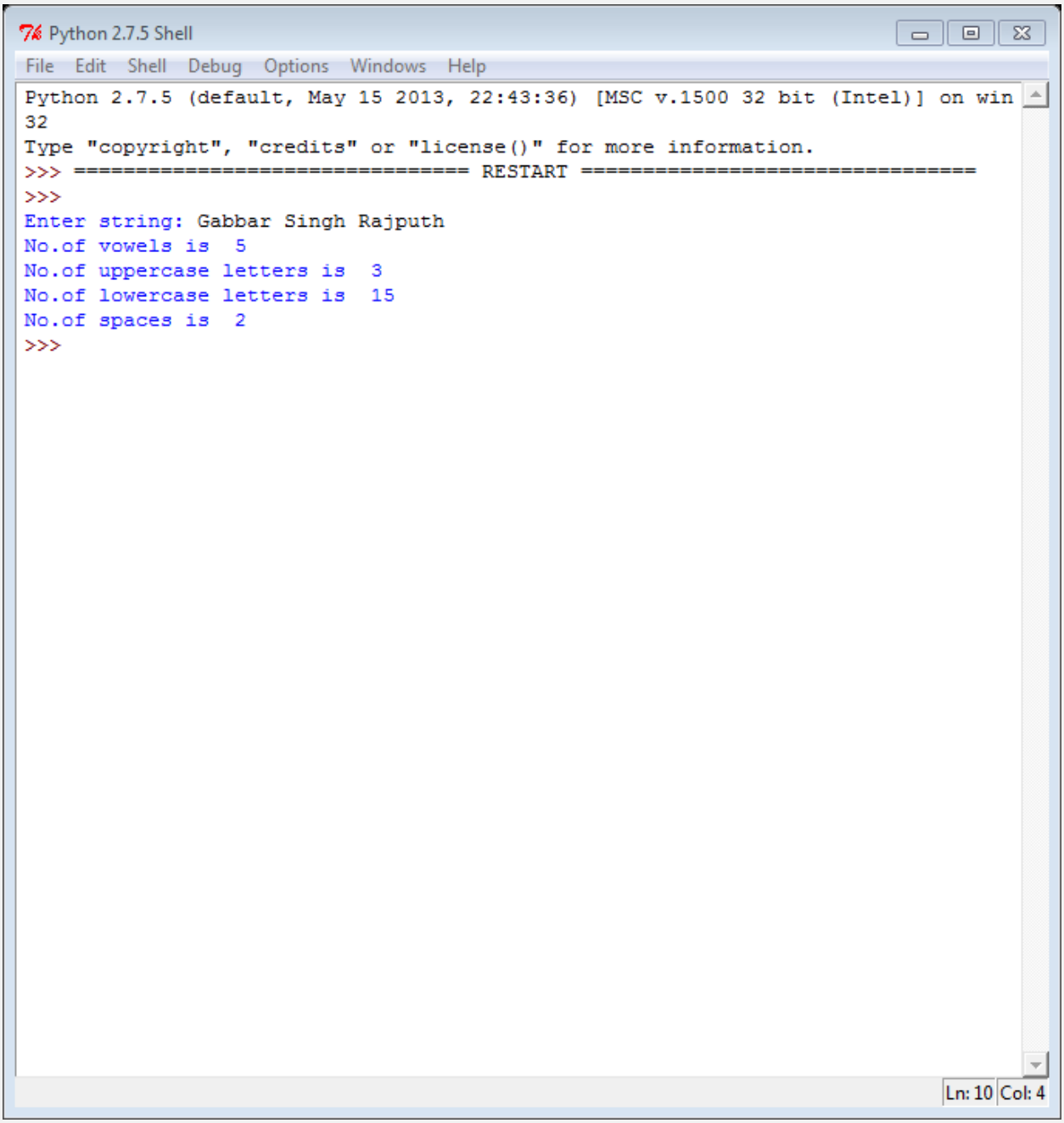
18) AIM-

To Count the Number of Vowels, uppercase letters, lowercase letters and spaces in a given string.

SOURCE CODE-

```
def alphabet(x):
    v,u,l,s=0,0,0,0
    for i in x:
        if (i in "aeiou"):
            v+=1
        if i.isupper():
            u+=1
        if i.islower():
            l+=1
        if i.isspace():
            s+=1
    print "No.of vowels is ",v
    print "No.of uppercase letters is ",u
    print "No.of lowercase letters is ",l
    print "No.of spaces is ",s
x=raw_input("Enter string: ")
alphabet(x)
```

OUTPUT-


Python 2.7.5 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.5 (default, May 15 2013, 22:43:36) [MSC v.1500 32 bit (Intel)] on win
32
Type "copyright", "credits" or "license()" for more information.
>>> ========== RESTART ==========
>>>
Enter string: Gabbar Singh Rajputh
No.of vowels is 5
No.of uppercase letters is 3
No.of lowercase letters is 15
No.of spaces is 2
>>>
Ln: 10 Col: 4

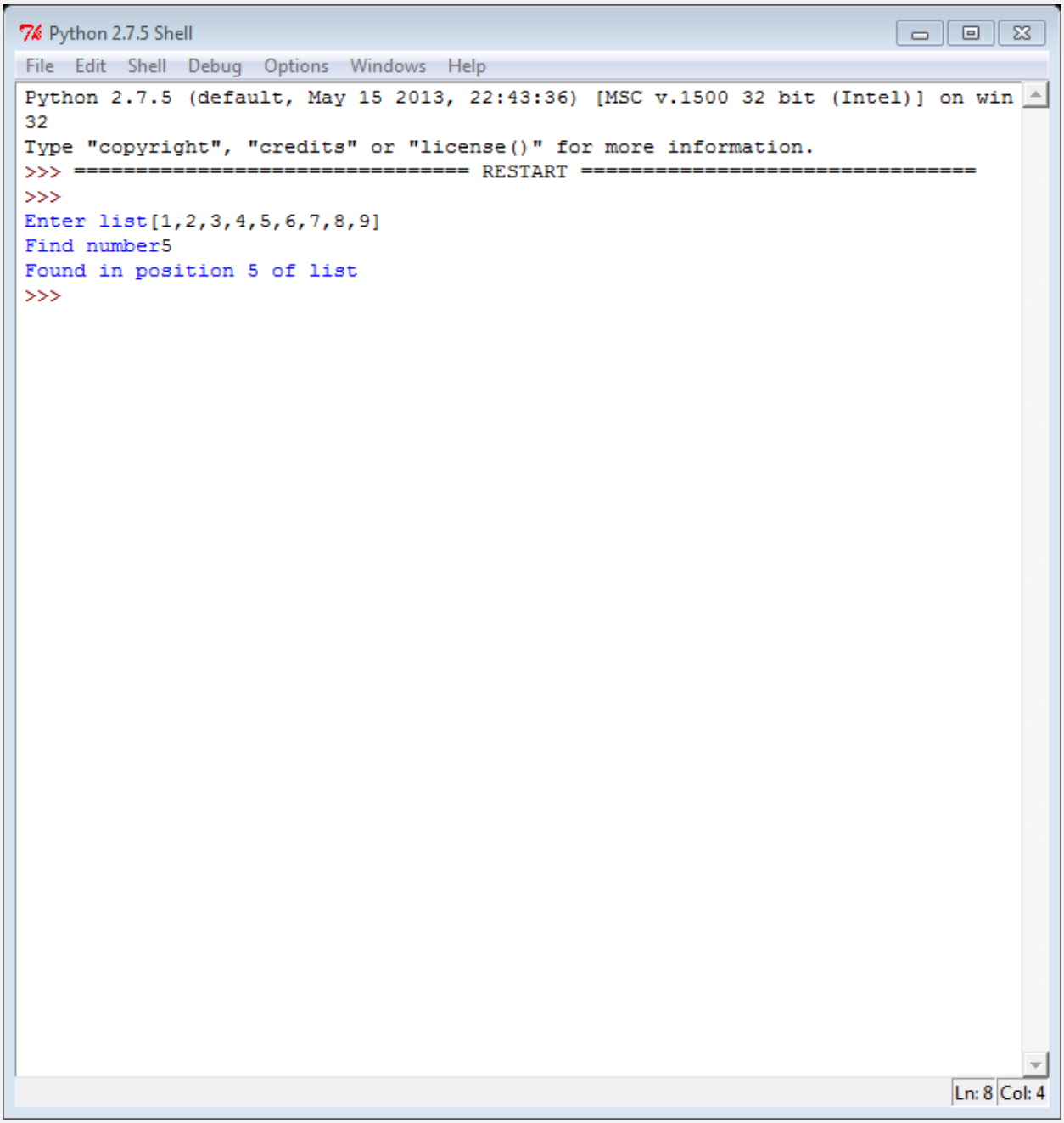
19) AIM-

To Search an element using Linear Search.

SOURCE CODE-

```
n=list(input("Enter list"))
x=input("Find number")
for i in range(0,len(n)):
    if (x==n[i]):
        print "Found in position",i+1,"of list"
```

OUTPUT-


Python 2.7.5 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.5 (default, May 15 2013, 22:43:36) [MSC v.1500 32 bit (Intel)] on win
32
Type "copyright", "credits" or "license()" for more information.
>>> ========== RESTART ==========
>>>
Enter list[1,2,3,4,5,6,7,8,9]
Find number5
Found in position 5 of list
>>>
Ln: 8 Col: 4

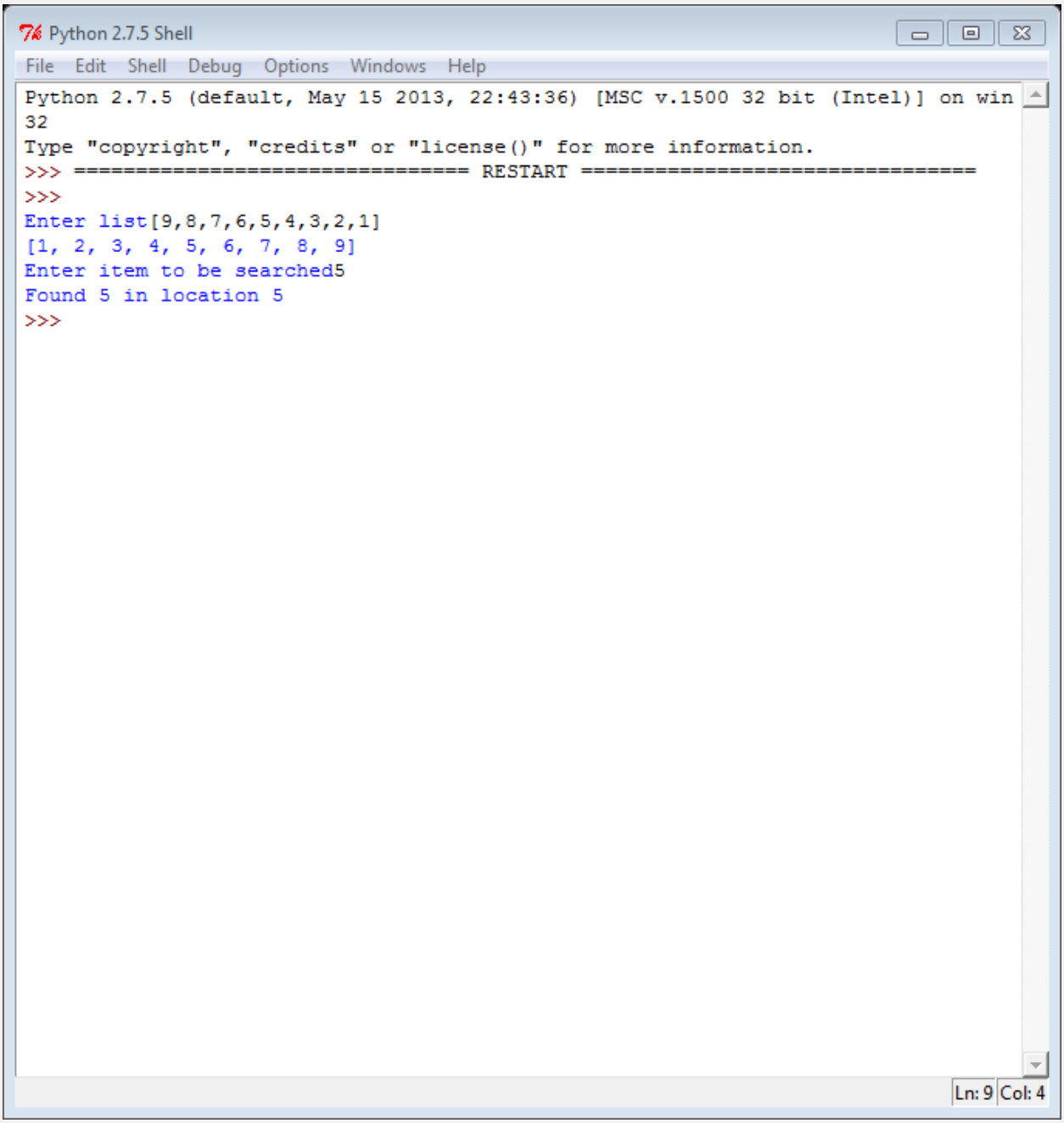
20) AIM-

To Search an element using Binary Search.

SOURCE CODE-

```
n=list(input("Enter list"))
l=len(n)
for i in range(0,l):
    for j in range(0,l-1):
        if(n[j]>n[j+1]):
            n[j],n[j+1]=n[j+1],n[j]
print n
x=input("Enter item to be searched")
b=0
e=len(n)-1
while(b<=e):
    m=(b+e)/2
    if (n[m]==x):
        print "Found",x,"in location",m+1
        break
    elif(x>n[m]):
        b=m+1
    else:
        e=m-1
if(b>e):
    print "Not found"
```

OUTPUT-


Python 2.7.5 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.5 (default, May 15 2013, 22:43:36) [MSC v.1500 32 bit (Intel)] on win
32
Type "copyright", "credits" or "license()" for more information.
>>> ========== RESTART ==========
>>>
Enter list[9,8,7,6,5,4,3,2,1]
[1, 2, 3, 4, 5, 6, 7, 8, 9]
Enter item to be searched5
Found 5 in location 5
>>>
Ln: 9 Col: 4

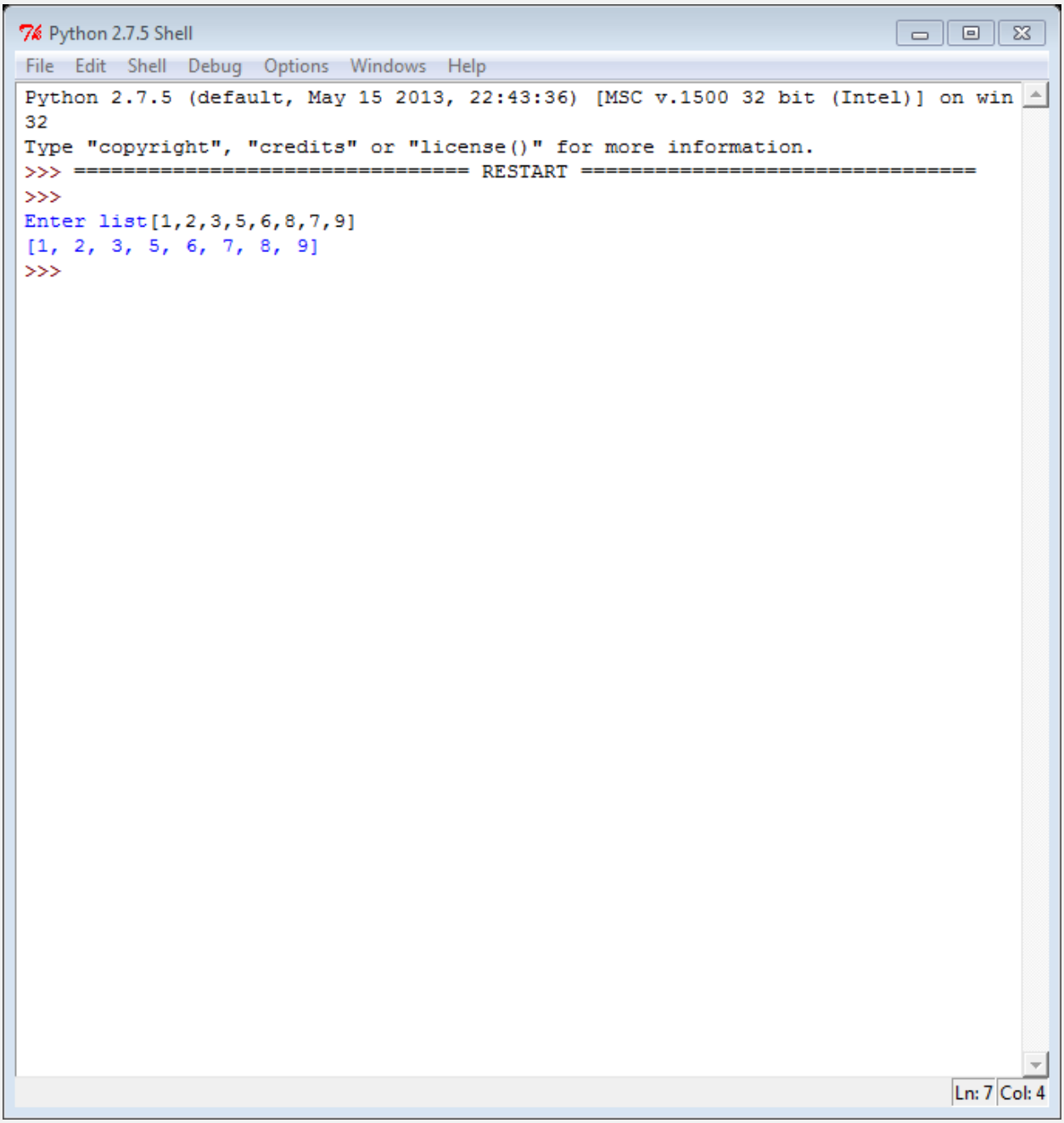
21) AIM-

To Sort an element using Selection Sort.

SOURCE CODE-

```
x=list(input("Enter list"))
for i in range(0,len(x)):
    for j in range(i+1,len(x)):
        if (x[i]>x[j]):
            x[i],x[j]=x[j],x[i]
print x
```

OUTPUT-


Python 2.7.5 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.5 (default, May 15 2013, 22:43:36) [MSC v.1500 32 bit (Intel)] on win
32
Type "copyright", "credits" or "license()" for more information.
>>> ========== RESTART ==========
>>>
Enter list[1,2,3,5,6,8,7,9]
[1, 2, 3, 5, 6, 7, 8, 9]
>>>
Ln: 7 Col: 4

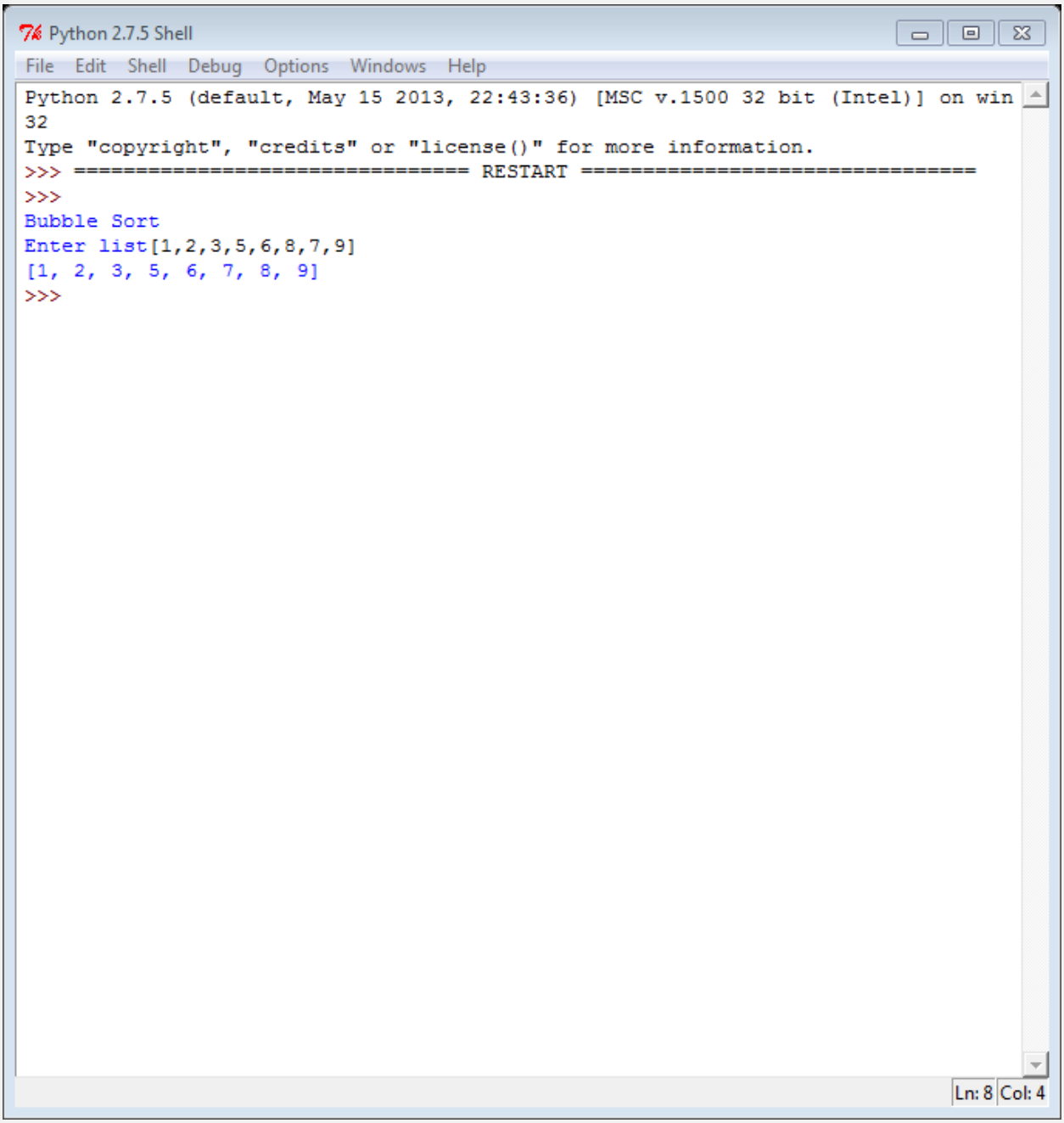
22) AIM-

To Sort an element using Bubble Sort.

SOURCE CODE-

```
print "Bubble Sort"
x=list(input("Enter list"))
n=len(x)
for i in range(0,n-1):
    for j in range(0,n-i-1):
        if(x[j]>x[j+1]):
            x[j],x[j+1]=x[j+1],x[j]
print x
```

OUTPUT-


Python 2.7.5 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.5 (default, May 15 2013, 22:43:36) [MSC v.1500 32 bit (Intel)] on win
32
Type "copyright", "credits" or "license()" for more information.
>>> ========== RESTART ==========
>>>
Bubble Sort
Enter list[1,2,3,5,6,8,7,9]
[1, 2, 3, 5, 6, 7, 8, 9]
>>>
Ln: 8 Col: 4

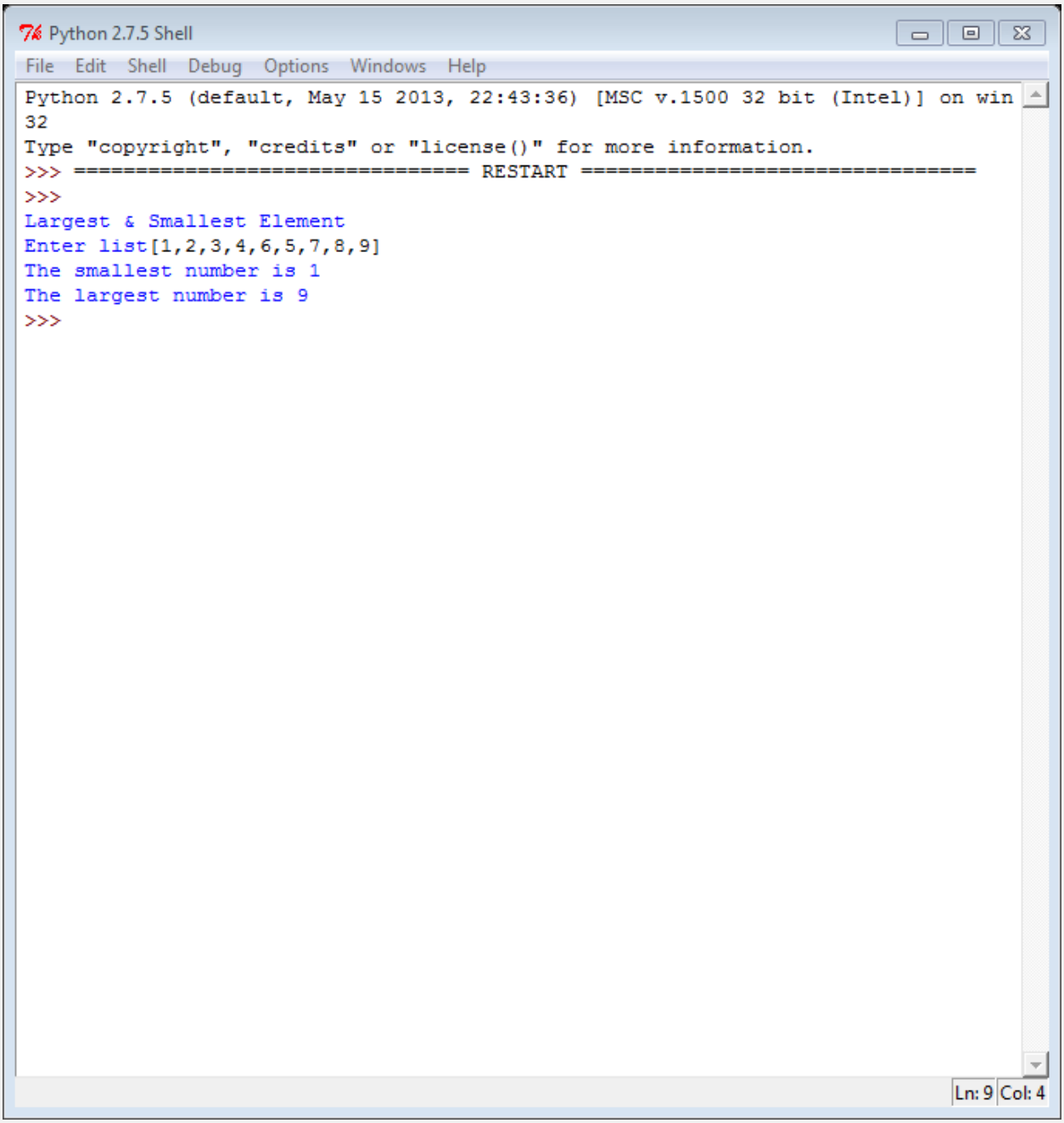
23) AIM-

To find the smallest and largest element in a list.

SOURCE CODE-

```
print "Largest & Smallest Element"
x=list(input("Enter list"))
for i in range(0,len(x)):
    for j in range(i+1,len(x)):
        if (x[i]>x[j]):
            x[i],x[j]=x[j],x[i]
print "The smallest number is",x[0]
print "The largest number is",x[len(x)-1]
```

OUTPUT-


Python 2.7.5 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.5 (default, May 15 2013, 22:43:36) [MSC v.1500 32 bit (Intel)] on win
32
Type "copyright", "credits" or "license()" for more information.
>>> ========== RESTART ==========
>>>
Largest & Smallest Element
Enter list[1,2,3,4,6,5,7,8,9]
The smallest number is 1
The largest number is 9
>>>
Ln: 9 Col: 4

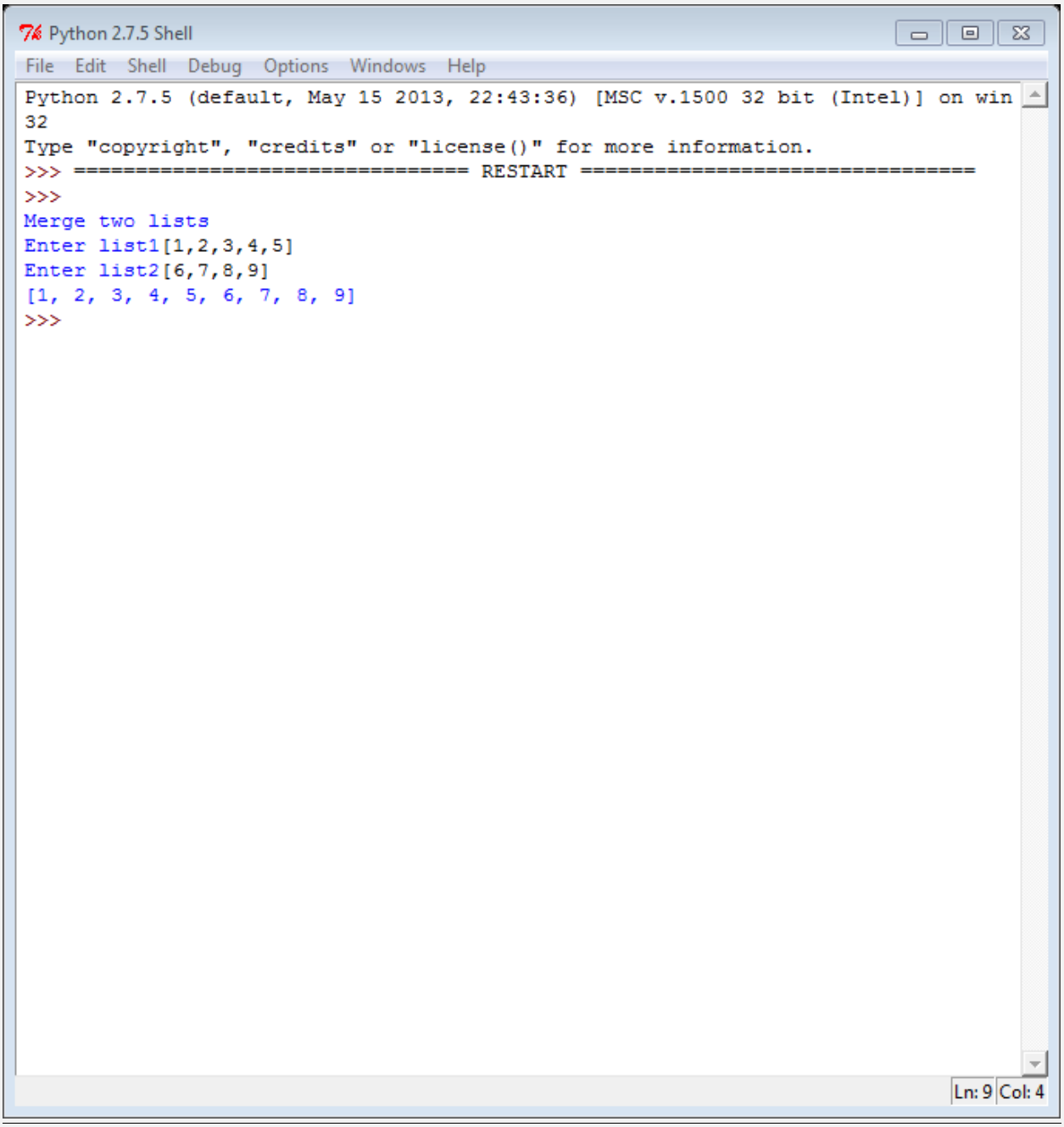
24) AIM-

To Merge two lists.

SOURCE CODE-

```
print "Merge two lists"
x=list(input("Enter list1"))
y=list(input("Enter list2"))
for i in range(0,len(y)):
    x.append(y[i])
print x
```

OUTPUT-


Python 2.7.5 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.5 (default, May 15 2013, 22:43:36) [MSC v.1500 32 bit (Intel)] on win
32
Type "copyright", "credits" or "license()" for more information.
>>> ========== RESTART ==========
>>>
Merge two lists
Enter list1[1,2,3,4,5]
Enter list2[6,7,8,9]
[1, 2, 3, 4, 5, 6, 7, 8, 9]
>>>
Ln: 9 Col: 4

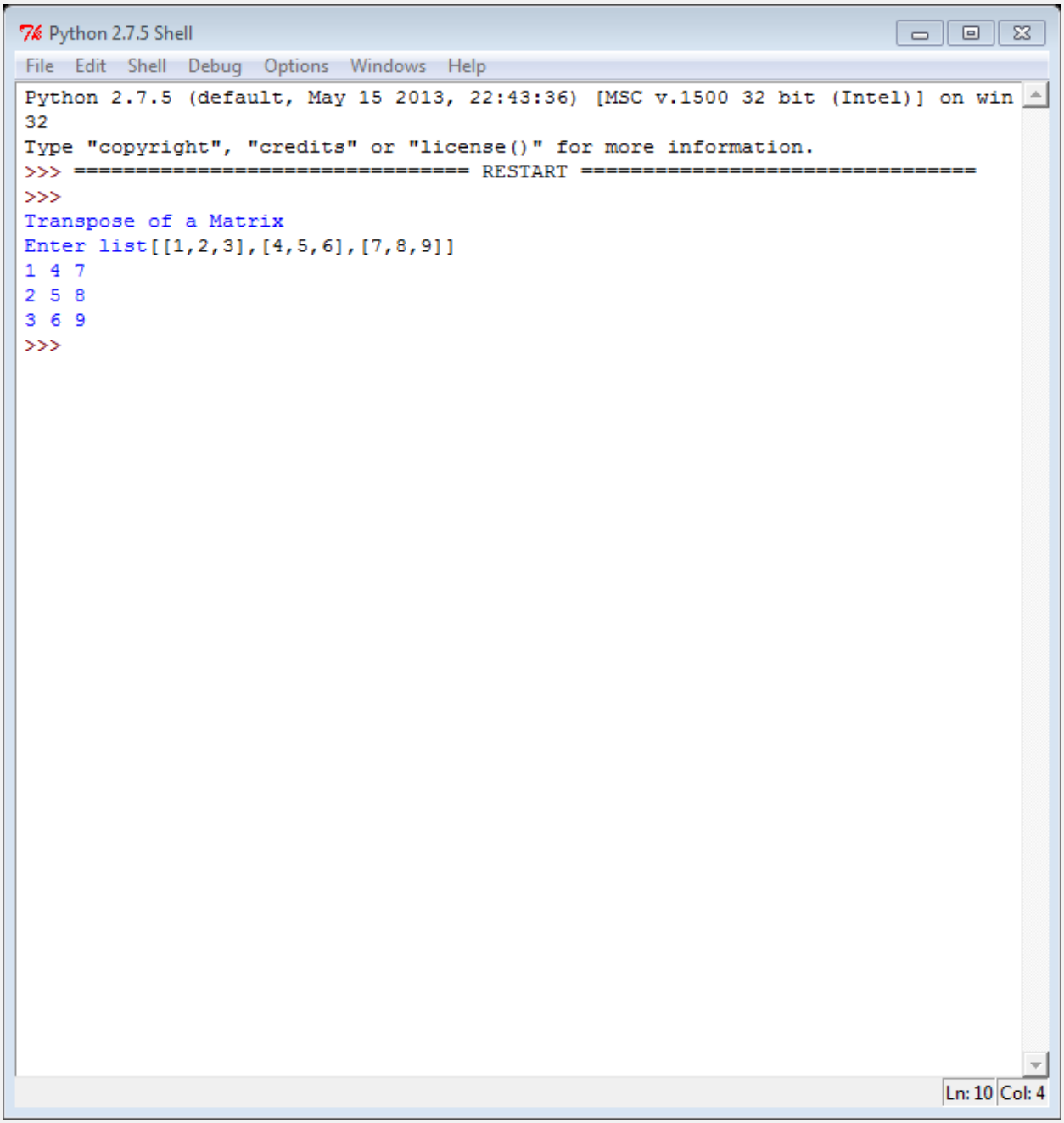
25) AIM-

To Transpose a Matrix.

SOURCE CODE-

```
print "Transpose of a Matrix"
a=list(input("Enter list"))
for i in range(0,len(a)):
  for j in range(0,len(a[i])):
    print a[j][i],
  print
```

OUTPUT-


Python 2.7.5 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.5 (default, May 15 2013, 22:43:36) [MSC v.1500 32 bit (Intel)] on win
32
Type "copyright", "credits" or "license()" for more information.
>>> ========== RESTART ==========
>>>
Transpose of a Matrix
Enter list[[1,2,3],[4,5,6],[7,8,9]]
1 4 7
2 5 8
3 6 9
>>>
Ln: 10 Col: 4

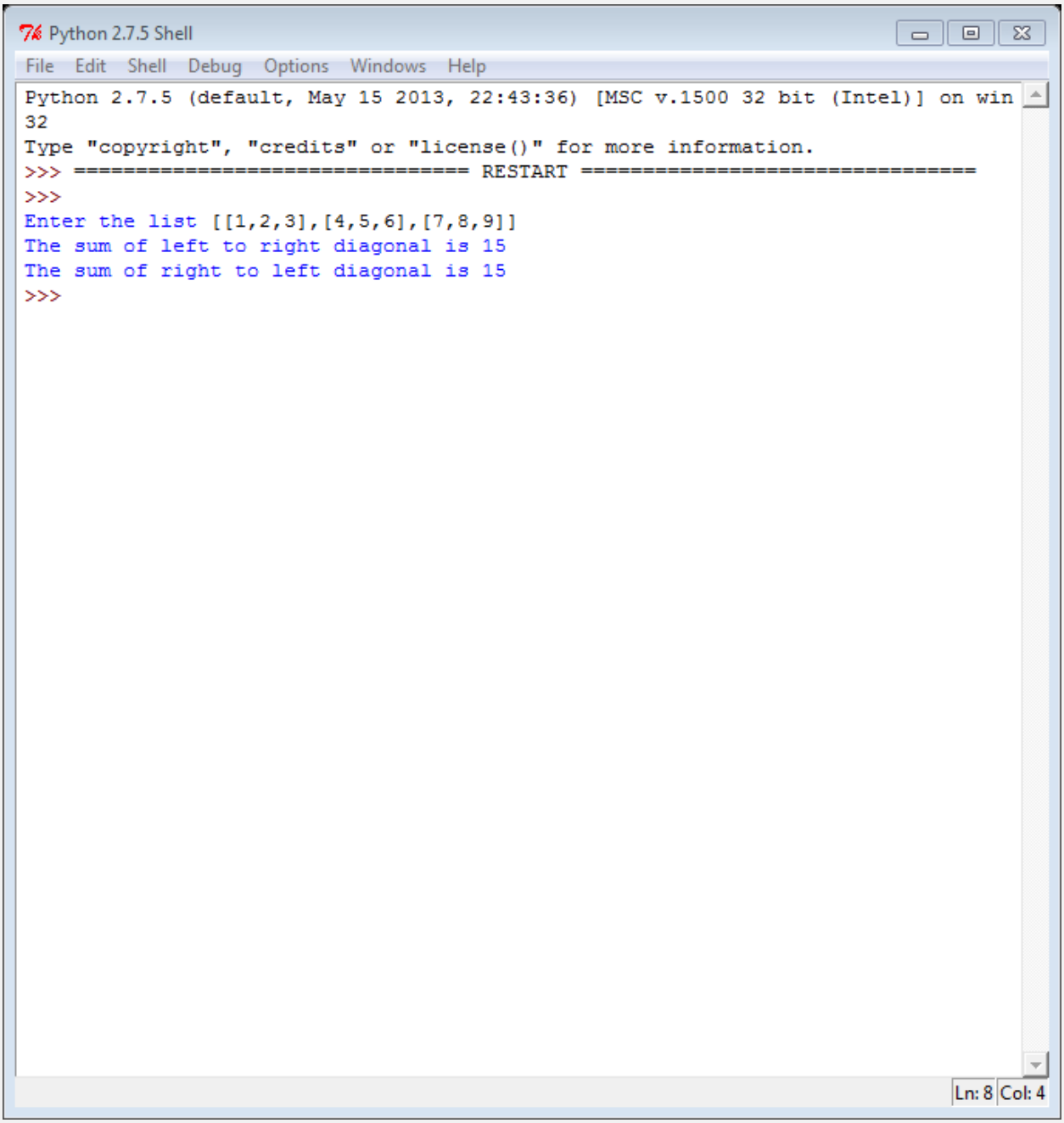
26) AIM-

To Find the Sum of both Diagonals.

SOURCE CODE-

```
n=list(input("Enter the list "))
x,y=0,0
for i in range(0,len(n)):
    for j in range(0,len(n[i])):
        if (i==j):
            x+=n[i][j]
        if (i+j==(len(n)-1)):
            y+=n[i][j]
print "The sum of left to right diagonal is",x
print "The sum of right to left diagonal is",y
```

OUTPUT-


Python 2.7.5 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.5 (default, May 15 2013, 22:43:36) [MSC v.1500 32 bit (Intel)] on win
32
Type "copyright", "credits" or "license()" for more information.
>>> ========== RESTART ==========
>>>
Enter the list [[1,2,3],[4,5,6],[7,8,9]]
The sum of left to right diagonal is 15
The sum of right to left diagonal is 15
>>>
Ln: 8 Col: 4

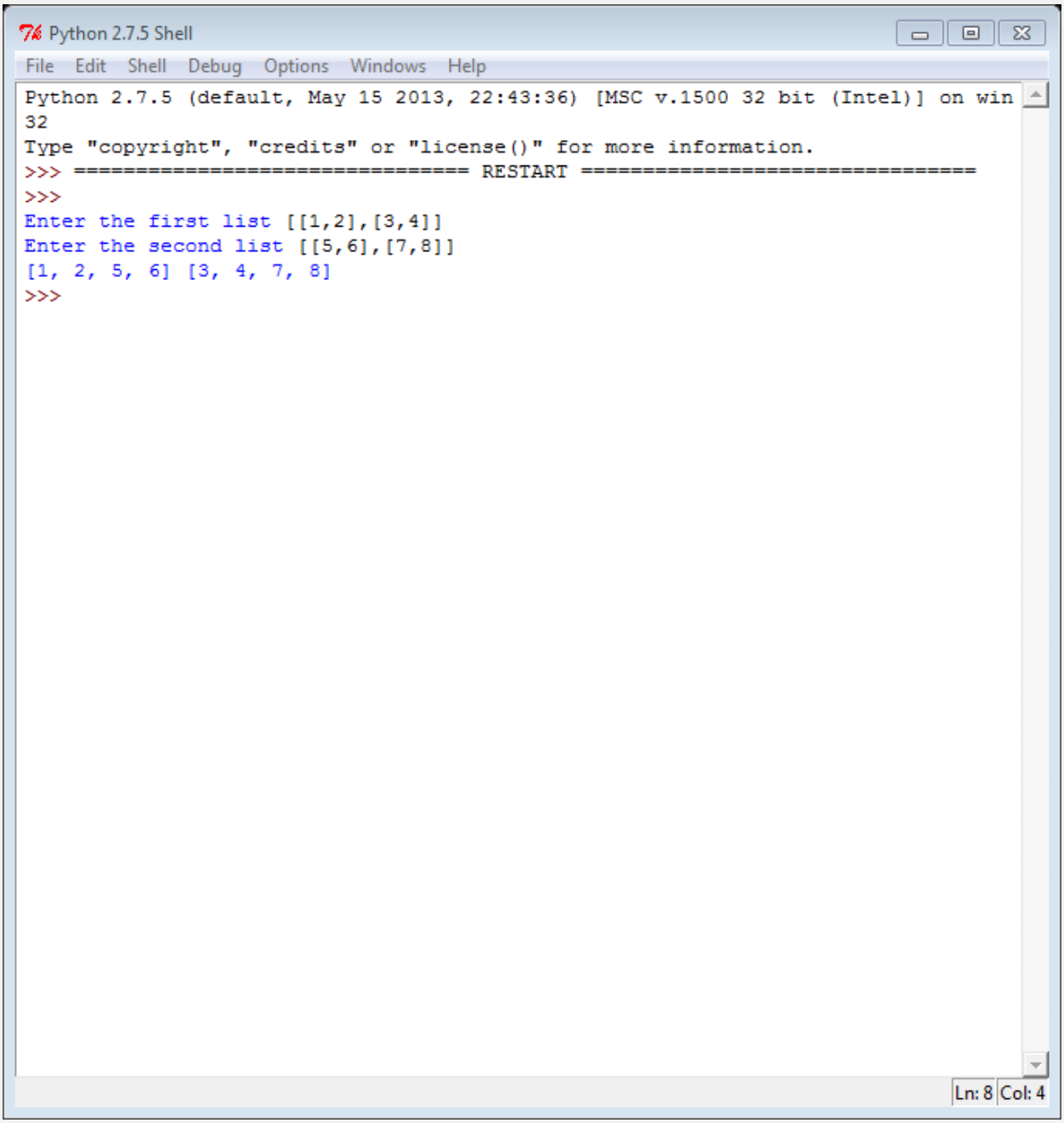
27) AIM-

To Find the Sum of two Matrices.

SOURCE CODE-

```
x=[input("Enter the first list ")]
y=[input("Enter the second list ")]
for i in range (0,len(x)):
  for j in range(0,len(x[i])):
    x[i][j]+=y[i][j]
for i in range(0,len(x)):
  for j in range(0,len(x[i])):
    print x[i][j],
  print
```

OUTPUT-


Python 2.7.5 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.5 (default, May 15 2013, 22:43:36) [MSC v.1500 32 bit (Intel)] on win
32
Type "copyright", "credits" or "license()" for more information.
>>> ========== RESTART ==========
>>>
Enter the first list [[1,2],[3,4]]
Enter the second list [[5,6],[7,8]]
[1, 2, 5, 6] [3, 4, 7, 8]
>>>
Ln: 8 Col: 4

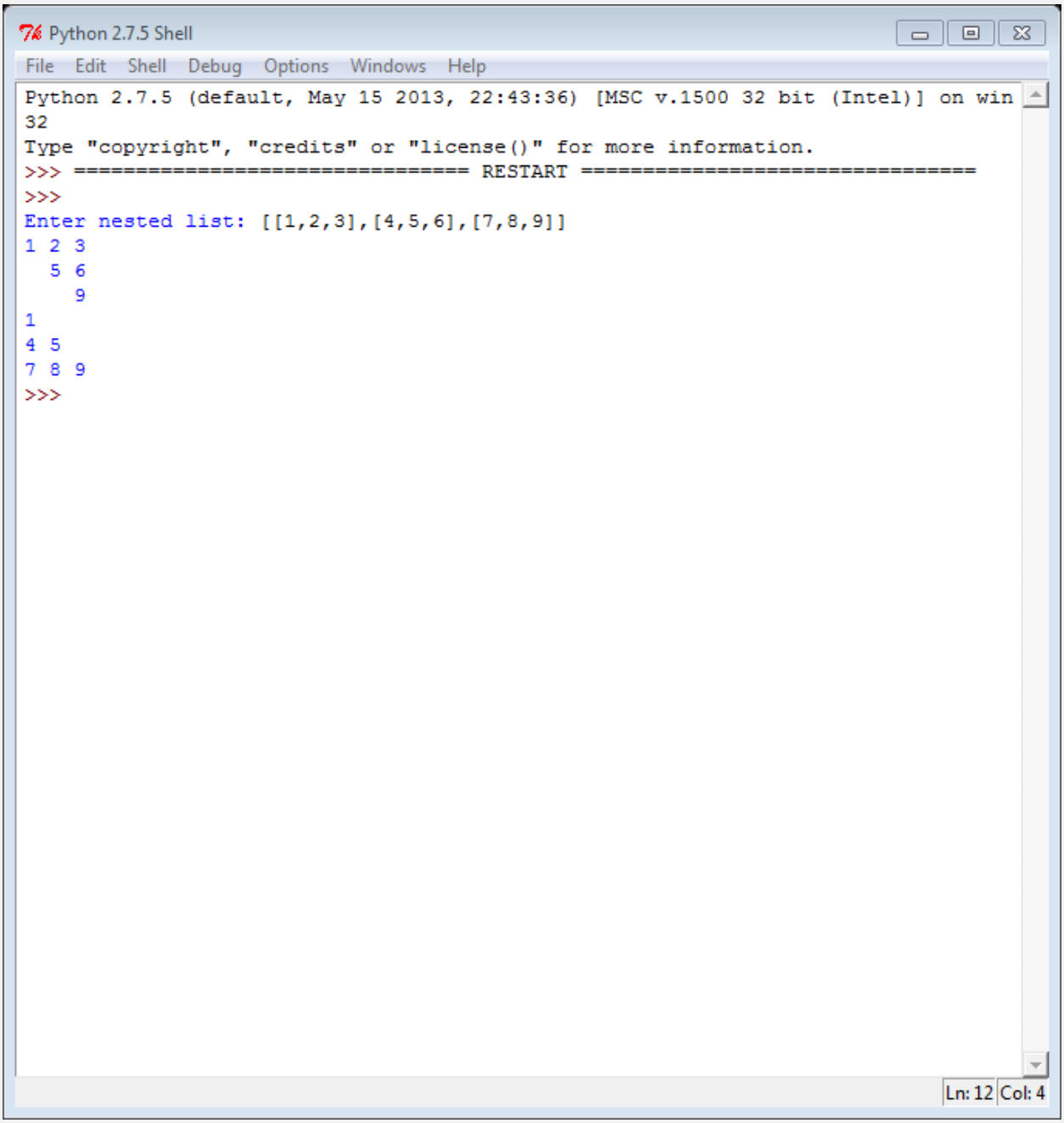
28) AIM-

To Print the Upper Triangle and Lower Triangle.

SOURCE CODE-

```
n=list(input("Enter nested list: "))
for i in range(0,len(n)):
    for j in range(0,len(n[i])):
        if(i<=j):
            print n[i][j],
        else:
            print " ",
    print
for i in range(0,len(n)):
    for j in range(0,len(n[i])):
        if(i>=j):
            print n[i][j],
        else:
            print " ",
    print
```

OUTPUT-


Python 2.7.5 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.5 (default, May 15 2013, 22:43:36) [MSC v.1500 32 bit (Intel)] on win
32
Type "copyright", "credits" or "license()" for more information.
>>> ========== RESTART ==========
>>>
Enter nested list: [[1,2,3],[4,5,6],[7,8,9]]
1 2 3
5 6
9
1
4 5
7 8 9
>>>
Ln: 12 Col: 4

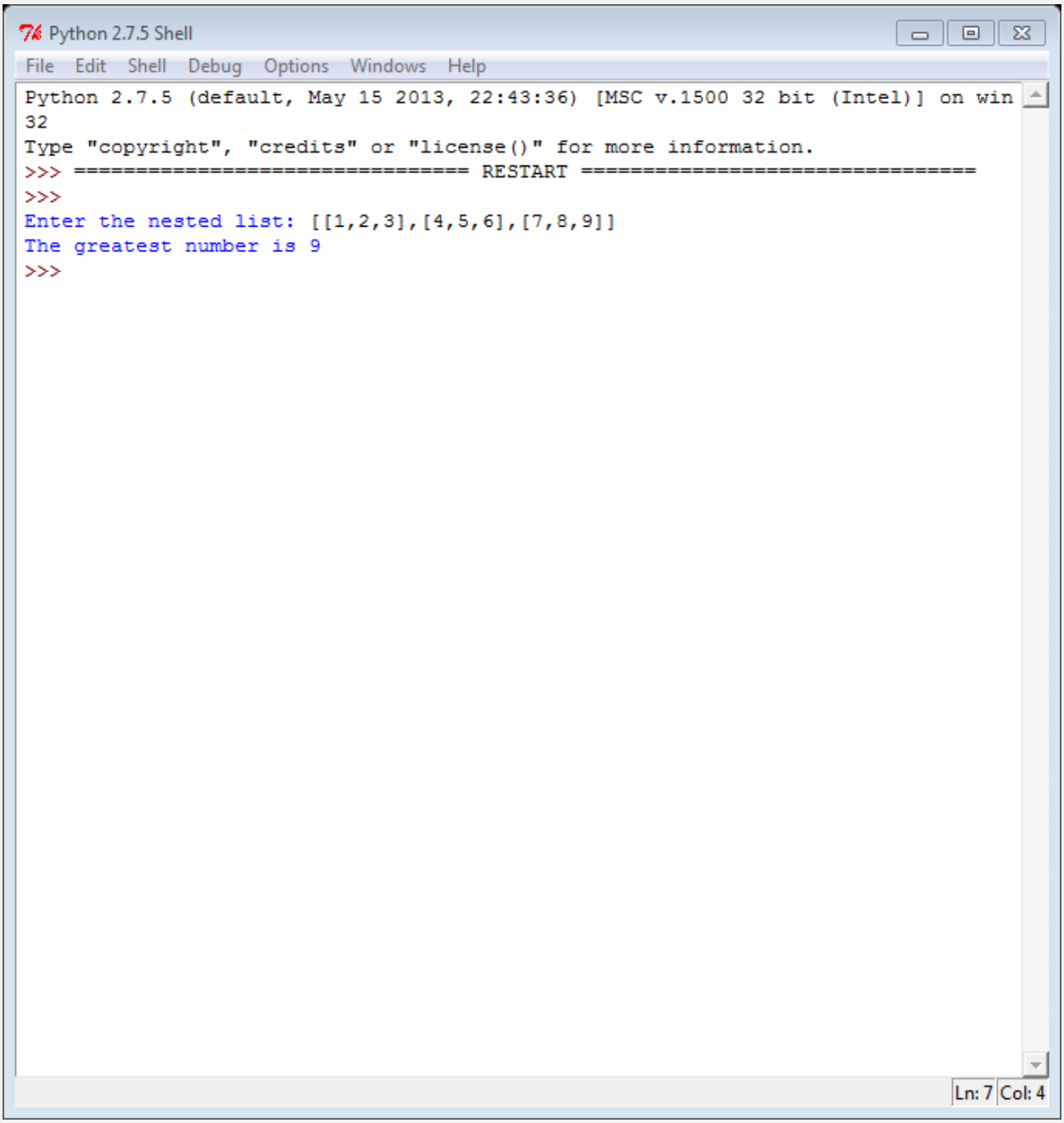
29) AIM-

To Find the largest element in the Matrix.

SOURCE CODE-

```
x=list(input("Enter the nested list: "))
a=x[0][0]
for i in range(0,len(x)):
    for j in range(0,len(x[i])):
        if (x[i][j]>a):
            a=x[i][j]
print "The greatest number is",a
```

OUTPUT-


Python 2.7.5 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.5 (default, May 15 2013, 22:43:36) [MSC v.1500 32 bit (Intel)] on win
32
Type "copyright", "credits" or "license()" for more information.
>>> ========== RESTART ==========
>>>
Enter the nested list: [[1,2,3],[4,5,6],[7,8,9]]
The greatest number is 9
>>>
Ln: 7 Col: 4

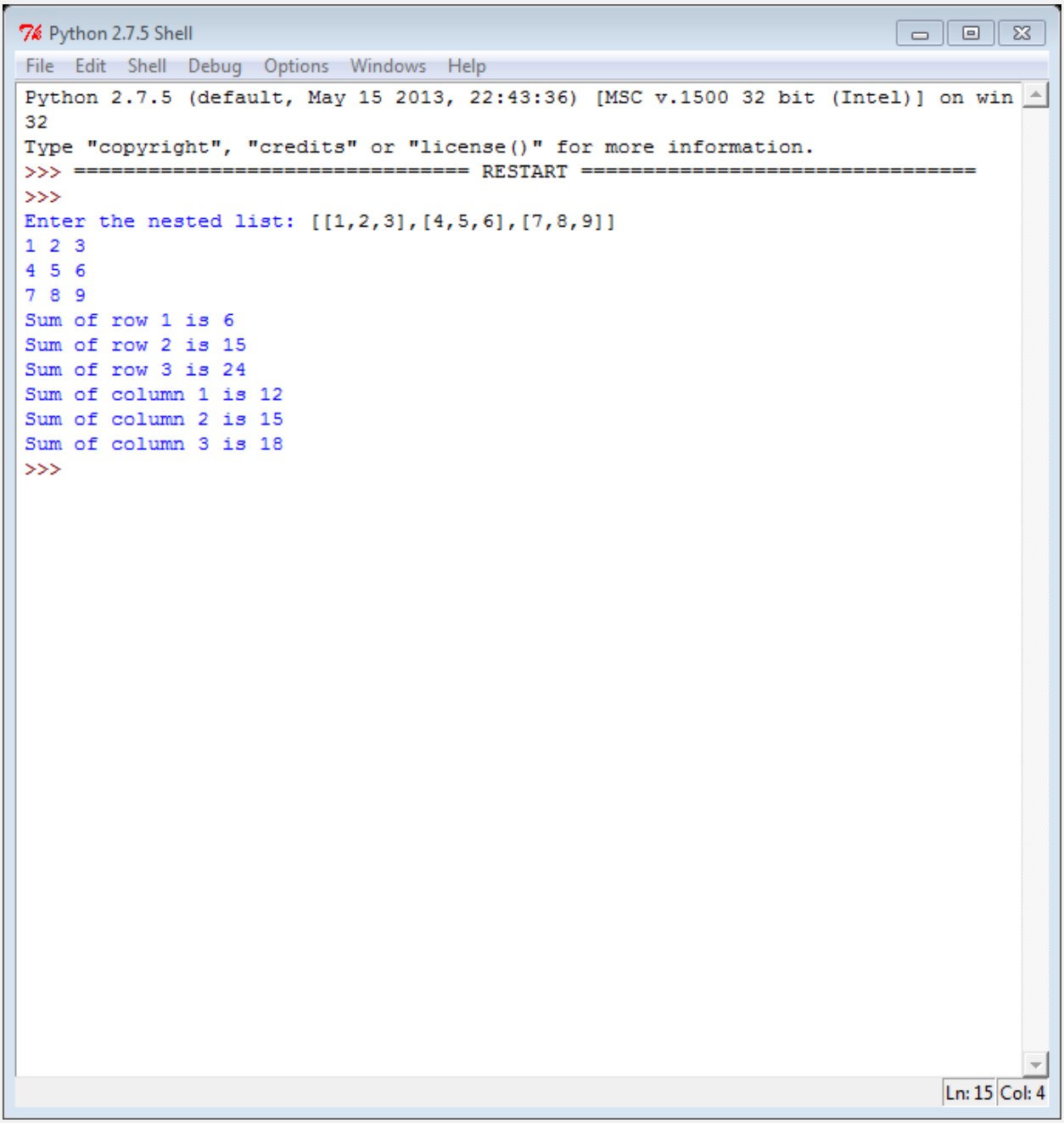
30) AIM-

To Find the sum of rows and columns of a Matrix.

SOURCE CODE-

```
n=list(input("Enter the nested list: "))
for i in range(0,len(n)):
  for j in range(0,len(n[i])):
    print n[i][j],
  print
for i in range(0,len(n)):
  print "Sum of row",i+1,"is",sum(n[i])
for j in range (0,len(n)):
  s=0
  for k in range(0,len(n[i])):
    s+=n[k][j]
  print "Sum of column",j+1,"is",s
```

OUTPUT-


Python 2.7.5 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.5 (default, May 15 2013, 22:43:36) [MSC v.1500 32 bit (Intel)] on win
32
Type "copyright", "credits" or "license()" for more information.
>>> ========== RESTART ==========
>>>
Enter the nested list: [[1,2,3],[4,5,6],[7,8,9]]
1 2 3
4 5 6
7 8 9
Sum of row 1 is 6
Sum of row 2 is 15
Sum of row 3 is 24
Sum of column 1 is 12
Sum of column 2 is 15
Sum of column 3 is 18
>>>
Ln: 15 Col: 4