**1.**Write a Python program to print the following string in a specific format (see the output).  
*Sample String :* "Twinkle, twinkle, little star, How I wonder what you are! Up above the world so high, Like a diamond in the sky. Twinkle, twinkle, little star, How I wonder what you are"  
*Output :*

Twinkle, twinkle, little star,

How I wonder what you are!

Up above the world so high,

Like a diamond in the sky.

Twinkle, twinkle, little star,

How I wonder what you are

print('''Twinkle, twinkle, little star,

    How I wonder what you are!

        Up above the world so high,

        Like a diamond in the sky.

Twinkle, twinkle, little star,

    How I wonder what you are''')

**2.** Write a Python program to find out what version of Python you are using.

import sys

print("Python version:",sys.version)

**3.** Write a Python program to display the current date and time.  
Sample Output :  
Current date and time :  
2014-07-05 14:34:14

import datetime

now = datetime.datetime.now()

print ("Current date and time : ")

print (now.strftime("%Y-%m-%d %H:%M:%S"))

**4.** Write a Python program that calculates the area of a circle based on the radius entered by the user.  
Sample Output :  
r = 1.1  
Area = 3.8013271108436504

from math import pi

r =float(input("Nhap ban kinh: "))

print("Dien tich la: ",pi\*r\*\*2)

**5.** Write a Python program that accepts the user's first and last name and prints them in reverse order with a space between them.

fname = input("First Name : ")

lname = input("Last Name : ")

print (lname + " " + fname)

**6.** Write a Python program that accepts a sequence of comma-separated numbers from the user and generates a list and a tuple of those numbers.  
Sample data : 3, 5, 7, 23  
Output :  
List : ['3', ' 5', ' 7', ' 23']  
Tuple : ('3', ' 5', ' 7', ' 23')

values = input("Nhap chuoi so : ")

list = values.split(",")

tuple = tuple(list)

print('List : ',list)

print('Tuple : ',tuple)

**7.** Write a Python program that accepts a filename from the user and prints the extension of the file.  
Sample filename : abc.java  
Output : java

filename = input("Nhap ten file: ")

f\_extns = filename.split(".")

print ("file extension la: " + repr(f\_extns[-1]))

**8.** Write a Python program to display the first and last colors from the following list.  
color\_list = ["Red","Green","White" ,"Black"]

color\_list = ["Red","Green","White" ,"Black"]

print( "%s %s"%(color\_list[0],color\_list[1]))

**9.** Write a Python program to display the examination schedule. (extract the date from exam\_st\_date).  
exam\_st\_date = (11, 12, 2014)  
Sample Output : The examination will start from : 11 / 12 / 2014

ngaythi = (11,12,2014)

print( "ki thi bat dau tu : %i / %i / %i"%ngaythi)

**10.**Write a Python program that accepts an integer (n) and computes the value of n+nn+nnn.  
Sample value of n is 5Expected Result : 615

a = int(input("Nhap a: "))

n1 = int( "%s" % a )

n2 = int( "%s%s" % (a,a) )

n3 = int( "%s%s%s" % (a,a,a) )

print (n1+n2+n3)

**11.** Write a Python program to print the documents (syntax, description etc.) of Python built-in function(s).  
Sample function : abs()Expected Result :  
abs(number) -> number  
Return the absolute value of the argument.

print(abs(-9))

**12.** Write a Python program that prints the calendar for a given month and year.  
Note : Use 'calendar' module.

import calendar

y =int(input("Nhap nam: "))

m=int(input("Nhap thang: "))

print(calendar.month(y,m))

**13.** Write a Python program to print the following 'here document'.  
Sample string :  
a string that you "don't" have to escape  
This  
is a ....... multi-line  
heredoc string --------> example

print('''a string that you "don't" have to escape

This

is a ....... multi-line

heredoc string --------> example''')

**14.** Write a Python program to calculate the number of days between two dates.  
Sample dates : (2014, 7, 2), (2014, 7, 11)  
Expected output : 9 days

from datetime import date

f\_date = date(2014, 7, 2)

l\_date = date(2014, 8, 11)

delta = l\_date - f\_date

print(delta.days)

**15.** Write a Python program to get the volume of a sphere with radius six.

from math import pi

r= 6

print("The tich:",4.0/3.0\*pi\* r\*\*3)

**16.** Write a Python program to calculate the difference between a given number and 17. If the number is greater than 17, return twice the absolute difference.

n=int(input("Nhap n: "))

print("Hieu:",17-n) if n<=17 else print("Hieu:",(n-17)\*2)

**17.** Write a Python program to test whether a number is within 100 of 1000 or 2000.

n=int(input("Nhap n: "))

print(f"{n} nam trong pham vi 100 cua 1000 hoac 2000") if ((abs(1000 - n) <= 100) or (abs(2000 - n) <= 100)) else print(f"{n} nam ngoai pham vi 100 cua 1000 hoac 2000")

**18.** Write a Python program to calculate the sum of three given numbers. If the values are equal, return three times their sum.

def sum\_thrice(x, y, z):

    print("sum:",(x+y+z)\*3) if x==y==z else print("sum:",x+y+z)

sum\_thrice(1, 2, 3)

**19.** Write a Python program to get a newly-generated string from a given string where "Is" has been added to the front. Return the string unchanged if the given string already begins with "Is".

def new\_string(text):

  if len(text) >= 2 and text [:2] == "Is":

    return text

  return "Is" + text

print(new\_string("Array"))

print(new\_string("IsEmpty"))

**20.** Write a Python program that returns a string that is n (non-negative integer) copies of a given string.

def larger\_string(text, n):

   result = ""

   for i in range(n):

      result = result + text

   return result

print(larger\_string('abc', 2))

print(larger\_string('.py', 3))

**21.** Write a Python program that determines whether a given number (accepted from the user) is even or odd, and prints an appropriate message to the user.

num = int(input("Nhap so: "))

mod = num % 2

if mod > 0:

    print(f"{num} la so le")

else:

    print(f"{num} la so chan")

**22.** Write a Python program to count the number 4 in a given list.

def list\_count\_4(nums):

  count = 0

  for num in nums:

    if num == 4:

      count = count + 1

  return count

print(list\_count\_4([1, 2, 3, 4, 4, 5, 4]))

**23.** Write a Python program to get n (non-negative integer) copies of the first 2 characters of a given string. Return n copies of the whole string if the length is less than 2.

def substring\_copy(text, n):

  flen = 2

  if flen > len(text):

    flen = len(text)

  substr = text[:flen]

  result = ""

  for i in range(n):

    result = result + substr

  return result

print(substring\_copy('abcdef', 2))

print(substring\_copy('p', 3))

**24.** Write a Python program to test whether a passed letter is a vowel or not.

def is\_vowel(char):

    all\_vowels = 'aeiou'

    return char in all\_vowels

print(is\_vowel('c'))

print(is\_vowel('e'))

**25.** Write a Python program that checks whether a specified value is contained within a group of values.  
Test Data :  
3 -> [1, 5, 8, 3] : True  
-1 -> [1, 5, 8, 3] : False

def is\_group\_member(group\_data, n):

   for value in group\_data:

       if n == value:

           return True

   return False

print(is\_group\_member([1, 5, 8, 3], 3))

print(is\_group\_member([5, 8, 3], -1))