1. Calculate Area of a Circle

Write a Python program which accepts the radius of a circle from the user and compute the area.

In [6]:
```
r=float(input("Enter The Radius Of Circle For Area = "))
a=float (3.142*(r*r))
print(f"Area Of Circle = {a} Unit Square")
```

```
Please Enter The Radius Of Circle For Area = .5
Area Of Circle = 0.7855 Unit Square
```

2. Check Number either positive, negative or zero

Write a Python program to check if a number is positive, negative or zero

In [9]:
```
a=float(input("Enter Number = "))
if a>=0:
    if a>0:
        print("Your Number Is Positive....")
    elif a==0:
        print("You Number Is Zero....")
else:
    print("Your Number Is Negative....")
```

```
Enter Number = -6.3
Your Number Is Negative....
```

3. Divisibility Check of two numbers

Write a Python program to check whether a number is completely divisible by another number. Accept two integer values form the user

In [12]:
```
a=float(input("Enter The First Number = "))
b=float(input("Enter The First Number = "))
if(a%b==0):
    print(f"Number {a} is Completely divisible by {b}")
else:
    print(f"Number {a} is Not Completely divisible by {b}")
```

```
Enter The First Number = 7
Enter The First Number = 3.5
Number 7.0 is Completely divisible by 3.5
```

4. Calculate Volume of a sphere

Write a Python program to get the volume of a sphere, please take the radius as input from user

In [14]:
```
r=float(input("Enter The Radius Of Sphere For Volume = "))
v=float ((4/3)*(3.142*(r*r*r)))
print(f"Volume of the Sphere with Radius {r} is {v} Unit Cube")
```

```
Enter The Radius Of Sphere For Volume = 2
Volume of the Sphere with Radius 2.0 is 33.51466666666666 Unit Cube
```

5. Copy string n times

Write a Python program to get a string which is n (non-negative integer) copies of a given string.

In [29]:
```
a=[input("Enter The String = ")]
b=int(input("How many copies of String you need = "))
for i in range (1,b+1):
    print(a,end = " ")
```

```
Enter The String = hi
How many copies of String you need = 4
['hi'] ['hi'] ['hi'] ['hi']
```

6. Check if number is Even or Odd

Write a Python program to find whether a given number (accept from the user) is even or odd, print out an appropriate message to the user

In [34]:
```
a=int(input("Enter Your Number = "))
if a>=0:
    if a%2==0:
        print(f"{a} is Even Number....")
    else:
        print(f"{a} is Odd Number....")
else:
    print(f"{a} is Invalid Number....")
    print("Enter Number Greater Than Zero....")
```

```
Enter Your Number = 8
8 is Even Number....
```

7. Vowel Tester

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

In [1]:
```
a=str(input("Enter The Alphabate = "))
a=a.lower()
if a=='a':
    print(f"{a} is Vowel....")
elif a=='e':
    print(f"{a} is Vowel....")
elif a=='i':
    print(f"{a} is Vowel....")
elif a=='o':
    print(f"{a} is Vowel....")
elif a=='u':
    print(f"{a} is Vowel....")
else:
    print(f"{a} is Not Vowel....")
```

```
Enter The Alphabate = R
r is Not Vowel....
```

8. Triangle area

Write a Python program that will accept the base and height of a triangle and compute the area

In [2]:
```
b=float(input("Enter The Base Of Triangle = "))
h=float(input("Enter The Height Of Triangle = "))
a=float (h*b)/2
print(f"Area Of Triangle With Base {b} And Height {h} = {a} Unit Square....")
```

```
Enter The Base Of Triangle = 5
Enter The Height Of Triangle = 4
Area Of Triangle With Base 5.0 And Height 4.0 = 10.0 Unit Square....
```

9. Calculate Interest

Write a Python program that will accept the base and height of a triangle and compute the area

In [7]:
```
p=float(input("Enter The Principal Amount = "))
i=float(input("Enter The Rate Of Interest In % = "))
y=float(input("Enter The number of years for investment = "))
t=float(p*((1+(i))** y))
print(f"After {y} years your principal amount {p} over an interest rate of {i} %
```

```
Enter The Principal Amount = 10000
Enter The Rate Of Interest In % = .1
Enter The number of years for investment = 5
After 5.0 years your principal amount 10000.0 over an interest rate of 0.1 % wi
ll be 16105.100000000006
```

10. Euclidean distance

write a Python program to compute the distance between the points (x1, y1) and (x2, y2).

In [8]:
```
x1=float(input("Enter Co-ordinate for x1 = "))
x2=float(input("Enter Co-ordinate for x2 = "))
y1=float(input("Enter Co-ordinate for y1 = "))
y2=float(input("Enter Co-ordinate for y1 = "))
print(f"Distance between points ({x1}, {x2}) and ({y1}, {y2}) is ({y1-x1}, {y2-x
```

```
Enter Co-ordinate for x1 = 2
Enter Co-ordinate for x2 = 4
Enter Co-ordinate for y1 = 4
Enter Co-ordinate for y1 = 4
Distance between points (2.0, 4.0) and (4.0, 4.0) is (2.0, 0.0)
```

11. Feet to Centimeter Converter

Write a Python program to convert height in feet to centimetres.

In [9]:
```
f=float(input("Enter The Height In Feets = "))
print(f"There are {f*30.48} Cm in {f} ft")
```

```
Enter The Height In Feets = 5
There are 152.4 Cm in 5.0 ft
```

12. BMI Calculator

Write a Python program to calculate body mass index

In [10]:
```
h=float(input("Enter The Height In Cms = "))
w=float(input("Enter The Weight in Kgs = "))
b=float(w/h/h)*10000
print(f"Your BMI is {b}")
```

```
Enter The Height In Cms = 180
Enter The Weight in Kgs = 75
Your BMI is 23.148148148148152
```

13. Sum of n Positive Integers

Write a python program to sum of the first n positive integers

In [13]:
```
n=int(input("Enter Value Of n = "))
a=0
for i in range(1,n+1):
    a=a+i
print(f"Sum of n Positive integers till {n} is {a}")
```

```
Enter Value Of n = 5
Sum of n Positive integers till 5 is 15
```

14. Digits Sum of a Number

Write a Python program to calculate the sum of the digits in an integer

In [15]:
```
n=int(input("Enter a number:"))
t=0
while(n>0):
    d=n%10
    t=t+d
    n=n//10
print("The total sum of digits is:",t)
```

```
Enter a number:15
The total sum of digits is: 6
```