PYTHON ASSIGNMENT 1 UTKARSH 1-11-2023

In [ ]:
```
""" 1. Write a python program to calculate the area of a circle. Print area
with 2 decimal places. """
import math

r = int(input("Enter the radius: "))
a = math.pi * r**2
print("Area of the circle:", round(a, 2))
```

In [57]:
```
""" 2. Write a Python program to calculate the area and perimeter of a rectangle"""
l=int(input("Enter the length"))
b=int(input("Enter the breath"))
a=l*b
p=2*(l+b)
print("area", a)
print("perimeter" , p)
```

```
area 20
perimeter 18
```

In [58]:
```
""" 3. Write a python program to read your name from keyboard as first name
and last name and display as “Hi Full name”
  """
x=(input("Enter the first Name"))
y=(input("Enter the last name"))
print("HI"+x + y+"name")
```

```
HIUTKARSHBAGESHWARname
```

In [59]:
```
""" 4. Python Program to Convert Kilometers to Miles """
miles = float(input("Enter miles: "))
kms = miles * 1.6093
print("Kilometers:", kms)
```

```
Kilometers: 8.0465
```

In [60]:
```
""" 5. Python Program to Convert Celsius To Fahrenheit """
c = float(input("enter temperature in celsius: "))
f = (c * 9/5) + 32
print(c,"celsius is equal to",f,"fahrenheit")
```

```
20.0 celsius is equal to 68.0 fahrenheit
```

In [61]:
```
"""6. Python Program to Find the Square Root(use math.sqrt function/exponentiation)
import math
num = float(input("enter a number: "))
sq = math.sqrt(num)
print("square root of",num,"is",sq)
```

```
square root of 64.0 is 8.0
```

In [62]:
```
""" 7. Write a python program to display working of all arithmetic operations.  """
a=int(input("no first"))
```

```
b=int(input("no second"))
addition = a + b
subtraction = a - b
multiplication = a * b
division = a / b
remainder = a % b
exponentiation = a ** b

# Print the results
print("Addition:", addition)
print("Subtraction:", subtraction)
print("Multiplication:", multiplication)
print("Division:", division)
print("Remainder:", remainder)
print("Exponentiation:", exponentiation)
```

```
Addition: 13
Subtraction: -1
Multiplication: 42
Division: 0.8571428571428571
Remainder: 6
Exponentiation: 279936
```

In [67]:
```
""" 8. Write Python Program to Solve Quadratic Equation (Use cmath.sqrt function)
import cmath

a = float(input("Enter the coefficient a: "))
b = float(input("Enter the coefficient b: "))
c = float(input("Enter the coefficient c: "))


discriminant = cmath.sqrt(b**2 - 4*a*c)

x = (-b + discriminant) / (2*a)
y = (-b - discriminant) / (2*a)

print("The solutions are:", x ,"and" ,y )
```

```
The solutions are: (-0.75+1.1989578808281798j) and (-0.75-1.1989578808281798j)
```

In [68]:
```
""" 9. Write Python Program to Generate a Random Number(Use random.randint function
import random
r = random.randint(1, 44)
print("The random number is:", r)
```

```
The random number is: 3
```

In [69]:
```
""" 10. A store charges Rs 120 per item if you buy less than 10 items. If you
buy between 10 and 99 items, the cost is Rs 100 per item.If you buy 100
or more items, the cost is Rs 70 per item. Write a program that asks the
user how many items they are buying and the total cost """
u = int(input("enter the number of items: "))
if u < 10:
 cost = 120
if u < 100:
 cost = 100
if u >100:
```

```
 cost = 70
total = u * cost
print("The total cost is:", total)
```

```
The total cost is: 5500
```

In [70]:
```
""" 11. Write a Python Program to Check if a Number is Positive, Negative or zero."
no = int(input("enter the number  "))
if no < 0:
    print ("no is negative")
elif no > 0:
 print ( "no is positive")
else :
 print("The number",no)
```

```
no is negative
```

In [71]:
```
""" 12. Write a Python Program to Check if a Number is Odd or Even  """
check = int(input("Enter the number"))
if check % 2 == 0:
    print ("no is even")
else :
      print( "no is odd")
```

```
no is even
```

In [72]:
```
""" 13. Write a Python Program to Check Leap Year  """
year =int(input("Enter the year"))
if year % 4 == 0 :
 if year % 100 == 0:
    if year % 400 == 0:
      print("year leap")
    else :
      print("year not leap")
 else :
    print("year leap")
else :
 print("year not leap")
```

```
year leap
```

In [48]:
```
""" 14. Write a Python Program to Find the Largest Among Three Numbers  """
a =int(input("enter the number"))
b =int(input("enter the number"))
c =int(input("enter the number"))
if a > b and a > c :
  print("a is largest ")
elif b > a and b > c :
  print ("b is largest")
else :
  print (" c is largest")
```

```
c is largest
```

In [51]:
```
""" 15. Write a to check the number is a multiple of 3 print “Multiple of 3”,if
it is a multiple of 7 print “Multiple of 7”, if it is a multiple of both, print
multiple of both 3 and 7 """
a =int(input("enter the number"))
```

```
if a%3==0 :
    print ("multiple of 3")
if a%3==0 and a%7==0 :
    print ("multiple of 3 and 7 ")
else :
    print ("not multiple of 3 ")
```

```
not multiple of 3
```