python_basic_programming_2

May 12, 2023

1.Write a Python program to convert Kilometers to Miles ?

[1]:
```
def kmToMiles():
    kiloMeters = float(input("Enter no of kilometers : "))
    print("{} km is Equal to {} miles".format(kiloMeters,kiloMeters*0.621))

kmToMiles()
```

```
Enter no of kilometers : 52
52.0 km is Equal to 32.292 miles
```

2.Write a Python program to convert Celsius to Farenheit ?

[2]:
```
def celToFarh():
    celsius = int(input("Enter temperature in celsius : "))
    Farenheit = (celsius*(9/5))+32
    print("{}° Celsius is Equal to {}° Farenheit".format(celsius,Farenheit))

celToFarh()
```

```
Enter temperature in celsius : 12
12° Celsius is Equal to 53.6° Farenheit
```

3.Write a Python program to display calender ?

[4]:
```
import calendar

def ShowCalender():
    year = int(input("Enter calender year: "))
    print(calendar.calendar(year))

ShowCalender()
```

```
Enter calender year: 2023
                                  2023

      January                   February                  March
Mo Tu We Th Fr Sa Su      Mo Tu We Th Fr Sa Su      Mo Tu We Th Fr Sa Su
                   1             1  2  3  4  5             1  2  3  4  5
 2  3  4  5  6  7  8       6  7  8  9 10 11 12       6  7  8  9 10 11 12
 9 10 11 12 13 14 15      13 14 15 16 17 18 19      13 14 15 16 17 18 19
```

```
16 17 18 19 20 21 22      20 21 22 23 24 25 26      20 21 22 23 24 25 26
23 24 25 26 27 28 29      27 28                     27 28 29 30 31
30 31

       April                     May                      June
Mo Tu We Th Fr Sa Su      Mo Tu We Th Fr Sa Su      Mo Tu We Th Fr Sa Su
                1  2       1  2  3  4  5  6  7                1  2  3  4
 3  4  5  6  7  8  9       8  9 10 11 12 13 14       5  6  7  8  9 10 11
10 11 12 13 14 15 16      15 16 17 18 19 20 21      12 13 14 15 16 17 18
17 18 19 20 21 22 23      22 23 24 25 26 27 28      19 20 21 22 23 24 25
24 25 26 27 28 29 30      29 30 31                  26 27 28 29 30

        July                    August                  September
Mo Tu We Th Fr Sa Su      Mo Tu We Th Fr Sa Su      Mo Tu We Th Fr Sa Su
                1  2          1  2  3  4  5  6                1  2  3
 3  4  5  6  7  8  9       7  8  9 10 11 12 13       4  5  6  7  8  9 10
10 11 12 13 14 15 16      14 15 16 17 18 19 20      11 12 13 14 15 16 17
17 18 19 20 21 22 23      21 22 23 24 25 26 27      18 19 20 21 22 23 24
24 25 26 27 28 29 30      28 29 30 31               25 26 27 28 29 30
31

      October                   November                 December
Mo Tu We Th Fr Sa Su      Mo Tu We Th Fr Sa Su      Mo Tu We Th Fr Sa Su
                   1             1  2  3  4  5                1  2  3
 2  3  4  5  6  7  8       6  7  8  9 10 11 12       4  5  6  7  8  9 10
 9 10 11 12 13 14 15      13 14 15 16 17 18 19      11 12 13 14 15 16 17
16 17 18 19 20 21 22      20 21 22 23 24 25 26      18 19 20 21 22 23 24
23 24 25 26 27 28 29      27 28 29 30               25 26 27 28 29 30 31
30 31
```

4.Write a Python program to solve quadartic equation ?

[5]:
```python
import cmath
import math

def quadarticEquationRoots(a,b,c):

    discriminant = b*b-4*a*c

    if discriminant == 0:
        r1 = -b/2*a
        r2 = -b/2*a
        print("Roots are Real",r1,r2)
    elif discriminant > 0:
        r1 = (-b-math.sqrt(discriminant))/(2 * a)
        r2 = (-b+math.sqrt(discriminant))/(2 * a)
        print("Roots are Real and different",r1,r2)
```

```
    else:
        r1 = (-b-cmath.sqrt(discriminant))/(2 * a)
        r2 = (-b+cmath.sqrt(discriminant))/(2 * a)
        print("Roots are Imaginary",r1,r2)


a = int(input('Enter a value: '))
b = int(input('Enter b value: '))
c = int(input('Enter c value: '))

quadarticEquationRoots(a,b,c)
```

```
Enter a value: 25
Enter b value: 24
Enter c value: 26
Roots are Imaginary (-0.48-0.8997777503361594j) (-0.48+0.8997777503361594j)
```

5.Write a Python program to swap two variables without temp variable ?

[6]:
```
num_1 = int(input('Enter first number: '))
num_2 = int(input('Enter second number: '))


def swapNumbers(num_1,num_2):
        print('Before Swapping',num_1,num_2)
        num_1 = num_1+num_2
        num_2 = num_1-num_2
        num_1 = num_1-num_2
        print('before Swapping',num_1,num_2)

swapNumbers(num_1,num_2)
```

```
Enter first number: 26
Enter second number: 21
Before Swapping 26 21
before Swapping 21 26
```

[ ]:
```

```