# Assignment 2 Solutions

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

In [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 : 1

1.0 km is Equal to 0.621 miles

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

In [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 : 100

100° Celsius is Equal to 212.0° Farenheit

#### 3.Write a Python program to display calender ?

In [3]:

**import** calendar

**def** showCalender():

year **=** int(input("Enter calender year: "))

print(calendar**.**calendar(year))

showCalender()

Enter calender year: 2021

2021

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 2 3 1 2 3 4 5 6 7 1 2 3 4 5 6 7

4 5 6 7 8 9 10 8 9 10 11 12 13 14 8 9 10 11 12 13 14

11 12 13 14 15 16 17 15 16 17 18 19 20 21 15 16 17 18 19 20 21

18 19 20 21 22 23 24 22 23 24 25 26 27 28 22 23 24 25 26 27 28

25 26 27 28 29 30 31 29 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 3 4 1 2 1 2 3 4 5 6

5 6 7 8 9 10 11 3 4 5 6 7 8 9 7 8 9 10 11 12 13

12 13 14 15 16 17 18 10 11 12 13 14 15 16 14 15 16 17 18 19 20

19 20 21 22 23 24 25 17 18 19 20 21 22 23 21 22 23 24 25 26 27

26 27 28 29 30 24 25 26 27 28 29 30 28 29 30

31

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 3 4 1 1 2 3 4 5

5 6 7 8 9 10 11 2 3 4 5 6 7 8 6 7 8 9 10 11 12

12 13 14 15 16 17 18 9 10 11 12 13 14 15 13 14 15 16 17 18 19

19 20 21 22 23 24 25 16 17 18 19 20 21 22 20 21 22 23 24 25 26

26 27 28 29 30 31 23 24 25 26 27 28 29 27 28 29 30

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 2 3 1 2 3 4 5 6 7 1 2 3 4 5

4 5 6 7 8 9 10 8 9 10 11 12 13 14 6 7 8 9 10 11 12

11 12 13 14 15 16 17 15 16 17 18 19 20 21 13 14 15 16 17 18 19

18 19 20 21 22 23 24 22 23 24 25 26 27 28 20 21 22 23 24 25 26

25 26 27 28 29 30 31 29 30 27 28 29 30 31

#### 4.Write a Python program to solve quadartic equation ?

In [4]:

**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: 1

Enter b value: 2

Enter c value: 1

Roots are Real -1.0 -1.0

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

In [5]:

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: 15

Enter second number: 30

Before Swapping 15 30

before Swapping 30 15