**1. Write a Python program to convert kilometers to miles?**

**Sol.** km = 6

miles = km/1.60934

print("For {}km equivalent distance in miles = {}".format(km, miles))

For 6km equivalent distance in miles = 3.7282364198988405

**2.Write a Python program to convert Celsius to Fahrenheit?**

**Sol.** c = 35

f = (9\*c/5)+32

print("For Celsius = {} equivalent Fahrenheit = {}".format(c, f))

For Celsius = 35 equivalent Fahrenheit = 95.0

**3. Write a Python program to display calendar?**

**Sol.** import calendar

year = 2021

month = 12

print(calendar.month(year, month))

December 2021

Mo Tu We Th Fr Sa Su

1 2 3 4 5

6 7 8 9 10 11 12

13 14 15 16 17 18 19

20 21 22 23 24 25 26

27 28 29 30 31

year = 2022

print(calendar.calendar(year))

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

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

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

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

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

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 1 1 2 3 4 5

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

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

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

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

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 1 2 3 4 5 6 7 1 2 3 4

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

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

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

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

**4. Write a Python program to solve quadratic equation?**

**Sol.** import math

print("ax^2 + bx^1 + c = 0")

print("Enter the coeff a, b and constant c")

a = int(input(("Enter the coeff a: ")))

b = int(input(("Enter the coeff b: ")))

c = int(input(("Enter the constant c: ")))

d = (b\*\*2) - (4\*a\*c)

root1 = ((-1\*b)+(math.sqrt(d))) / (2\*a)

root2 = ((-1\*b)-(math.sqrt(d))) / (2\*a)

print('\nFor quad eq. {}x^2 + ({})x^1 + {}'.format(a,b,c))

print('The solutions are: {} and {}'.format(root1, root2))

ax^2 + bx^1 + c = 0

Enter the coeff a, b and constant c

Enter the coeff a: 1

Enter the coeff b: -9

Enter the constant c: 14

For quad eq. 1x^2 + (-9)x^1 + 14

The solutions are: 7.0 and 2.0

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

**Sol.** var1 = 6

var2 = 4

print('Before swap:\nvar1 = {} and var2 = {}'.format(var1, var2))

var2 = var1 + var2

var1 = var2 - var1

var2 = var2 - var1

print('\nAfter swap:\nvar1 = {} and var2 = {}'.format(var1, var2))

Before swap:

var1 = 6 and var2 = 4

After swap:

var1 = 4 and var2 = 6