Q. Write a Python program to convert kilometers to miles?

In [1]:
```python
# Using def function and .format method to print output

def Kmt_Miles():
    Kilometer = float(input("Enter No.Of Kilometer = "))
    print("{} Km is equal to {} Miles".format(Kilometer,Kilometer*0.621371))

Kmt_Miles()
```

22.0 Km is equal to 13.670162 Miles

Q. Write a Python program to convert Celsius to Fahrenheit?

In [2]:
```python
# Using def function and .format method to print output

def CeltoFahr():
    Celsius = int(input("Enter Temperature in Celsius = "))
    Fahrenheit = (Celsius*(9/5))+32
    print("{}° Celsius is equal to {}° Fahrenheit".format(Celsius,Fahrenheit))

CeltoFahr()
```

35° Celsius is equal to 95.0° Fahrenheit

Q. Write a Python program to display calendar?

In [3]:
```python
def showCalendar_1():

    import calendar
    print('\n')
    year = int(input("Enter Calender year: "))
    month = int(input("Enter Calender month: "))
    print('\n')
    print("*"*60)
    print(calendar.month(year, month))
    print("*"*60)
showCalendar_1()
```

```
    **********************************************************
          July 2023
    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

    **********************************************************
```

In [4]:
```python
def showCalender_2():

    import calendar

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

showCalender_2()
```

```
                                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
```

Q. Write a Python program to solve quadratic equation?

-> quadratic equation $ax^2+bx+c=0$ a, b, c = known numbers, where a ≠ 0 x = the unknown

-> descriminant = b2 - (4 a c)

-> x1 = (-b-sqrt(d))/2

-> x2 = (b-sqrt(d))/2

In [5]:
```python
def quadarticEquationRoots():

    # import complex math module
    import cmath

    a = int(input(" Enter value of a : "))
    b = int(input(" Enter value of b : "))
    c = int(input(" Enter value of c : "))

    # calculating  the discriminant
    dis = (b**2) - (4 * a*c)


    # find two results
    x1 = (-b-cmath.sqrt(dis))/(2 * a)
    x2 = (-b + cmath.sqrt(dis))/(2 * a)

    # printing the results
    print('The roots are = ')
    print("x1 =", x1)
    print("x2 =",x2)


quadarticEquationRoots()
```

```
The roots are =
x1 = (-8-13.856406460551018j)
x2 = (-8+13.856406460551018j)
```

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

In [6]:
```python
def swapNumbers():

    x = int(input("Num1 : "))
    y = int(input("Num2 : "))
```

```python
    print("Before swaping x =", x," y =", y)
    y,x = x,y

    print("After swaping x =", x," y =", y)

swapNumbers()
```

```
Before swaping x = 150  y = 250
After swaping x = 250  y = 150
```