

- Write a Python program to convert kilometers to miles?

In [1]:

```
1 def km_to_miles(km):
2     miles = km * 0.621371 # 1 kilometer is approximately 0.621371 miles
3     return miles
4
5 # Taking user input for kilometers
6 kilometers = float(input("Enter distance in kilometers: "))
7
8 # Converting kilometers to miles using the function
9 miles = km_to_miles(kilometers)
10 print(f"{kilometers} kilometers is equal to {miles} miles")
11
```

Enter distance in kilometers: 85
85.0 kilometers is equal to 52.816535 miles

- Write a Python program to convert Celsius to Fahrenheit?

In [2]:

```
1 def celsius_to_fahrenheit(celsius):
2     fahrenheit = (celsius * 9/5) + 32
3     return fahrenheit
4
5 # Taking user input for temperature in Celsius
6 celsius_temp = float(input("Enter temperature in Celsius: "))
7
8 # Converting Celsius to Fahrenheit using the function
9 fahrenheit_temp = celsius_to_fahrenheit(celsius_temp)
10 print(f"{celsius_temp} degrees Celsius is equal to {fahrenheit_temp} degrees Fahr
11
```

Enter temperature in Celsius: 45
45.0 degrees Celsius is equal to 113.0 degrees Fahrenheit

- Write a Python program to display calendar

In [4]:

```
1 import calendar
2
3 # Taking input for year and month
4 year = int(input("Enter the year: "))
5 month = int(input("Enter the month (1-12): "))
6
7 # Displaying the calendar
8 cal = calendar.month(year, month)
9 print(f"Calendar for {calendar.month_name[month]} {year}:\n")
10 print(cal)
11
```

Enter the year: 2025
Enter the month (1-12): 5
Calendar for May 2025:

```
      May 2025
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
```

- Write a Python program to solve quadratic equation?

In [5]:

```
1 import cmath
2
3 def solve_quadratic(a, b, c):
4     # Calculate the discriminant
5     discriminant = (b**2) - (4 * a * c)
6
7     # Calculate the solutions
8     solution1 = (-b - cmath.sqrt(discriminant)) / (2 * a)
9     solution2 = (-b + cmath.sqrt(discriminant)) / (2 * a)
10
11     return solution1, solution2
12
13 # Taking user input for coefficients
14 a = float(input("Enter coefficient a: "))
15 b = float(input("Enter coefficient b: "))
16 c = float(input("Enter coefficient c: "))
17
18 # Solving the quadratic equation using the function
19 solution_1, solution_2 = solve_quadratic(a, b, c)
20
21 print(f"Solutions for the quadratic equation {a}x^2 + {b}x + {c} = 0 are:")
22 print(f"Solution 1: {solution_1}")
23 print(f"Solution 2: {solution_2}")
24
```

Enter coefficient a: 45
Enter coefficient b: 63
Enter coefficient c: 58
Solutions for the quadratic equation 45.0x^2 + 63.0x + 58.0 = 0 are:
Solution 1: (-0.7-0.8938058451861283j)
Solution 2: (-0.7+0.8938058451861283j)

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

```
In [6]: 1 def swap_variables(a, b):
2         a, b = b, a
3         return a, b
4
5     # Taking user input for two variables
6     var1 = input("Enter the first variable: ")
7     var2 = input("Enter the second variable: ")
8
9     # Displaying the initial values
10    print(f"Before swapping: var1 = {var1}, var2 = {var2}")
11
12    # Swapping the variables using the function
13    var1, var2 = swap_variables(var1, var2)
14
15    # Displaying the swapped values
16    print(f"After swapping: var1 = {var1}, var2 = {var2}")
17
```

```
Enter the first variable: 5
Enter the second variable: 6
Before swapping: var1 = 5, var2 = 6
After swapping: var1 = 6, var2 = 5
```

```
In [ ]: 1
```