In [1]:
```
#Q1)Write a Python program to convert kilometers to miles?
```

In [2]:
```
def kilometers_to_miles(km):
    try:
        miles = (0.621)*float((km))
        print(f'{km} km in miles is {miles} miles')
    except ValueError:
        print("Enter the correct value of kilometer")
        km = input("enter the  value of kilometer")
        kilometers_to_miles(km)
```

In [3]:
```
#case1: when correct inputs are given:
km = input("enter the value of kilometer")
kilometers_to_miles(km)
```

```
enter the value of kilometer32
32 km in miles is 19.872 miles
```

In [4]:
```
#case2: when an invalid literal is given:
km = input("enter the value of kilometer")
kilometers_to_miles(km)
```

```
enter the value of kilometerkl
Enter the correct value of kilometer
enter the  value of kilometer32
32 km in miles is 19.872 miles
```

In [ ]:
```

```

In [5]:
```
#Q2)Write a Python program to convert Celsius to Fahrenheit?
```

In [6]:
```
def celsius_to_Fahrenheit(celsius):
    try:
        Fahrenheit = ((float(celsius))*(9/5))+32
        print(f'The {celsius}°C is {Fahrenheit}°F')
    except ValueError:
        print("enter the correct value of celsius")
        celsius = input("Enter the value of celsius")
        celsius_to_Fahrenheit(celsius)
```

In [7]:
```
#Case1: When correct input is given:
celsius = input("Enter the value of celsius")
celsius_to_Fahrenheit(celsius)
```

```
Enter the value of celsius32
The 32°C is 89.6°F
```

In [8]:
```
#Case2: when an invalid lietrals is given
celsius = input("Enter the value of celsius")
celsius_to_Fahrenheit(celsius)
```

```
Enter the value of celsiuskl
enter the correct value of celsius
Enter the value of celsius32
The 32°C is 89.6°F
```

In [ ]:
```

```

In [9]:
```
#Q3)Write a Python program to display calendar?
```

In [13]:
```
import calendar
try:
    year = int(input("enter a year"))
    month = int(input("enter a month in numbers[1-12]"))
    print(calendar.month(year, month))
except ValueError:
    print("Enter the correct values of year and month")
except TypeError as e:
    print(e)
```

```
enter a year2021
enter a month in numbers[1-12]6
     June 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
```

In [ ]:
```

```

In [14]:
```
#Q4) Write a Python program to solve quadratic equation?
```

In [18]:
```
import math
def quadratic_equation(a,b,c):
    try:
        delta = (b*b)-(4*a*c)
        if a==0:
            print("It is not a quadratic equation")

        if a!=0:
            if delta >0:
                print("it is a quadratic equation having real roots")
                r1 = (-b+math.sqrt(delta))/2*a
                r2 = (-b-math.sqrt(delta))/2*a
                print(f'roots of given quadratic equation is {r1} and {r2}')

            elif delta==0:
                print("it is a quadratic equation having real roots and they are equal")
                r1 = r2 = (-b+math.sqrt(delta))/2*a
                print(f'the roots of given quadratic equation is {r1} and {r2}')

            else:
                print("it is a quadratic equation having imaginary roots")
                r1 = -b/(2*a)
                r2 = delta/(2*a)
                print(f'the roots of given quadratic equation is {r1}+j{r2} and {r1}-j{r2}')

    except Exception as e:
        print(e)
```

In [19]:
```
#case1 when a=0
a,b,c = map(int, input("enter the values of a,b and c").split())
quadratic_equation(a,b,c)
```

```
enter the values of a,b and c0 2 4
It is not a quadratic equation
```

In [22]:
```
#case2 when a!=0:
a,b,c = map(int, input("enter the values of a,b and c").split())
quadratic_equation(a,b,c)
```

```
enter the values of a,b and c1 4 3
it is a quadratic equation having real roots
roots of given quadratic equation is -1.0 and -3.0
```

In [23]:
```
#Q5) Write a Python program to swap two variables without temp variable?
```

In [27]:
```
def swap(a,b):
    try:
        a,b = b,a
        print("swap function is excuted")
        print(f'the values of a and b after swap function is excuted is  {a} and {b}')
    except Exception as e:
        print(e)
```

In [28]:
```
a,b = input("enter the values of a and b").split()
print(f'before calling swap function the values of a and b are {a} and {b}')
swap(a,b)
```

```
enter the values of a and b2 3
before calling swap function the values of a and b are 2 and 3
swap function is excuted
the values of a and b after swap function is excuted is  3 and 2
```

In [ ]:
```

```