

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

```
In [1]: # Get input from user in kilometers
kilometers = float(input("Enter distance in kilometers: "))

# Convert kilometers to miles using the conversion factor
conv_fac = 0.621371
miles = kilometers * conv_fac

# Print the result
print(kilometers, "kilometers is equal to", miles, "miles")
```

```
Enter distance in kilometers: 1
1.0 kilometers is equal to 0.621371 miles
```

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

```
In [2]: # Get input from user in Celsius
celsius = float(input("Enter temperature in Celsius: "))

# Convert Celsius to Fahrenheit using the formula
fahrenheit = (celsius * 9/5) + 32

# Print the result
print(celsius, "degrees Celsius is equal to", fahrenheit, "degrees Fahrenheit")
```

```
Enter temperature in Celsius: 22
22.0 degrees Celsius is equal to 71.6 degrees Fahrenheit
```

3. Write a Python program to display calendar?

```
In [3]: import calendar

# Get input from user for year and month
year = int(input("Enter the year: "))
month = int(input("Enter the month (1-12): "))

# Display the calendar
print(calendar.month(year, month))
```

```
Enter the year: 2023
Enter the month (1-12): 3
March 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
```

4. Write a Python program to solve quadratic equation?

```
In [4]: # Get input from user for coefficients a, b, and c
a = float(input("Enter coefficient a: "))
b = float(input("Enter coefficient b: "))
c = float(input("Enter coefficient c: "))

# Calculate discriminant
discriminant = b**2 - 4*a*c

# Check if discriminant is positive, zero, or negative
if discriminant > 0:
```

```
# Calculate two roots
root1 = (-b + (discriminant)**0.5) / (2*a)
root2 = (-b - (discriminant)**0.5) / (2*a)
print("The roots are real and distinct:")
print("Root 1 =", root1)
print("Root 2 =", root2)
elif discriminant == 0:
    # Calculate one root
    root = -b / (2*a)
    print("The root is real and equal:")
    print("Root =", root)
else:
    # No real roots
    print("The roots are complex.")
```

```
Enter coefficient a: 1
Enter coefficient b: 6
Enter coefficient c: -2
The roots are real and distinct:
Root 1 = 0.3166247903553998
Root 2 = -6.3166247903554
```

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

```
In [5]: # Get input from user for variables x and y
x = input("Enter value for x: ")
y = input("Enter value for y: ")

# Swap the values of x and y
x, y = y, x

# Print the swapped values of x and y
print("After swapping:")
print("x =", x)
print("y =", y)
```

```
Enter value for x: 3
Enter value for y: 5
After swapping:
x = 5
y = 3
```

```
In [ ]:
```