Python Programming Assignment #2

Topic: Sequential Programs with User Input and Calculations

Instructions

For each of the following three tasks, write a sequential Python program that:

1. Asks the user for input using input().
2. Converts the input to a number (int or float).
3. Performs a calculation using the given formula.
4. Prints a clear, complete sentence with the result (properly formatted and rounded as specified).

Program 1: Circle Area Calculator

Objective: Compute the area of a circle from a user-provided radius.

Formula:

Area=π×radius**2 (Use 3.1416 for π)

Input Required:

- Radius of the circle (a positive number)

Output Format:
Print one sentence showing the area rounded to two decimal places.

✅ **Example Output (based on input):**

"The area of the circle is 78.54 square units."

Program 2: Fahrenheit to Celsius Converter

Objective: Convert a temperature from Fahrenheit to Celsius.

Formula:

$C=(F-32)\times 95$

Input Required:

- Temperature in degrees Fahrenheit (a number)

Output Format:
Print a sentence showing both the original Fahrenheit value and the converted Celsius value, with Celsius rounded to one decimal place.

✅ **Example Output:**

"98.6°F is 37.0°C."

Program 3: Trip Fuel Cost Estimator

Objective: Calculate the total fuel cost for a road trip.

Formula:

$$\text{Total Cost} = \left(\frac{\text{Distance}}{\text{Fuel Efficiency}}\right) \times \text{Price per Liter}$$

Input Required:

1. Trip distance (in kilometers)
2. Vehicle fuel efficiency (in kilometers per liter)
3. Fuel price per liter (in your local currency)

Output Format:
Print a sentence stating the total cost, including a currency symbol or code (e.g., USD, EUR, SAR, etc.).

✅ **Example Output:**

"Your trip will cost 42.75 EUR."