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### 3.2 Guided Practice Python and Functions Using AI

Question 1: Write a Python function that returns the value of today's date and displays it.

```
Python ^ Copy

import datetime

def show_today_date():
    # Get today's date
    today = datetime.date.today()

    # Display the date
    print("Today's date is:", today)

    # Return the date value
    return today

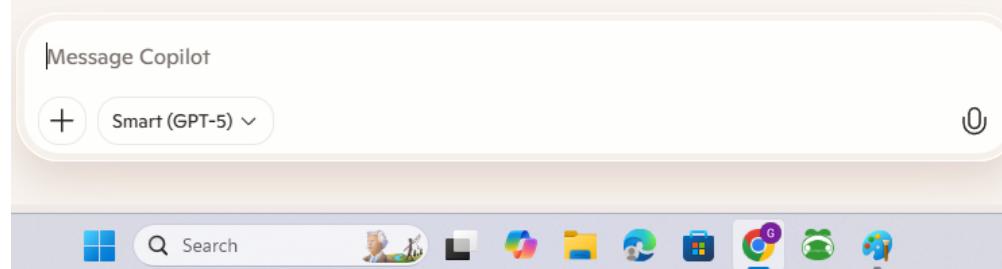
# Example usage
show_today_date()
```

#### Explanation

- `import datetime` → brings in Python's built-in **datetime module**.
- `datetime.date.today()` → fetches today's date in the format `YYYY-MM-DD`.
- `print(...)` → displays the date to the console.
- `return today` → allows the function to return the date value so you can use it elsewhere in your program.

👉 If you'd like, I can also show you how to format the date in a more **readable style** (like `November 30, 2025`) using `strftime`. Would you like me to extend the function to include that?

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Question 2: Write a Python program that displays today's date and doesn't use a function.

Got it ! If you want a simple Python program that just displays today's date without wrapping it in a function, here's how you can do it:

Python ^

Copy

```
import datetime

# Get today's date
today = datetime.date.today()

# Display the date
print("Today's date is:", today)
```

## ✍ How it works

- `import datetime` → loads the **datetime module**.
- `datetime.date.today()` → fetches today's date in `YYYY-MM-DD` format.
- `print(...)` → outputs the date directly to the console.

This is the most straightforward way to show today's date without defining a function.

Would you like me to also show you how to **format the date** into something more human-friendly, like `November 30, 2025` ?

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Question 3: Write a Python program that asks a user for the temperature in Fahrenheit and converts the temperature to Celsius.

Python ^

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```
# Ask the user for temperature in Fahrenheit
fahrenheit = float(input("Enter temperature in Fahrenheit: "))

# Convert Fahrenheit to Celsius
celsius = (fahrenheit - 32) * 5/9

# Display the result
print("Temperature in Celsius:", celsius)
```

## Explanation

- `input(...)` → prompts the user to type in a value.
- `float(...)` → converts the input string into a floating-point number so math can be done.
- Formula:

$$C = (F - 32) \times \frac{5}{9}$$

- `print(...)` → shows the converted temperature in Celsius.

👉 Example run:

Code ^

Copy

```
Enter temperature in Fahrenheit: 98.6
Temperature in Celsius: 37.0
```



Would you like me to also add **rounding** so the Celsius value shows only 2 decimal places for

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Smart (GPT-5) ▾



Question 4: Write a Python program that asks a user for the temperature in Celsius and converts the temperature to Fahrenheit.

Python ^

Copy

```
# Ask the user for temperature in Celsius
celsius = float(input("Enter temperature in Celsius: "))

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

# Display the result
print("Temperature in Fahrenheit:", fahrenheit)
```

## Explanation

- `input(...)` → prompts the user to enter a value.
- `float(...)` → converts the input string into a floating-point number for calculation.
- Formula:

$$F = (C \times \frac{9}{5}) + 32$$

- `print(...)` → shows the converted temperature in Fahrenheit.

👉 Example run:

Code ^

Copy

```
Enter temperature in Celsius: 37
Temperature in Fahrenheit: 98.6
```

Would you like me to also add **rounding** so the ↴ result shows only 2 decimal places for cleaner output?

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Smart (GPT-5) ↴



Question 5: Write a Python program that asks a user for two different temperatures in Celsius, calculates the average, and converts the average to Fahrenheit.

```

# Ask the user for two temperatures in Celsius
temp1 = float(input("Enter the first temperature in Celsius: "))
temp2 = float(input("Enter the second temperature in Celsius: "))

# Calculate the average in Celsius
average_celsius = (temp1 + temp2) / 2

# Convert the average to Fahrenheit
average_fahrenheit = (average_celsius * 9/5) + 32

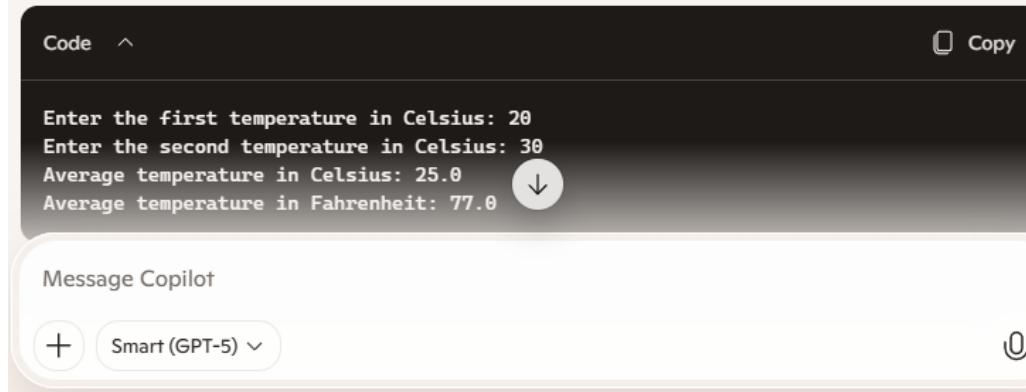
# Display the results
print("Average temperature in Celsius:", average_celsius)
print("Average temperature in Fahrenheit:", average_fahrenheit)

```

## Explanation

- `input(...)` → prompts the user to enter two values.
- `float(...)` → ensures the values are treated as numbers for calculation.
- Average formula: Average =  $\frac{T_1 + T_2}{2}$ .
- Conversion formula: F =  $(C \times \frac{9}{5}) + 32$ .
- `print(...)` → displays both the average in Celsius and Fahrenheit.

👉 Example run:



Code ^

Copy

```

Enter the first temperature in Celsius: 20
Enter the second temperature in Celsius: 30
Average temperature in Celsius: 25.0
Average temperature in Fahrenheit: 77.0

```

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+ Smart (GPT-5) ↴

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