import matplotlib.pyplot as plt

import numpy as np

def quadratic\_solution(a, b, c, x):

y = a \* x\*\*2 + b \* x + c

return y

def plot\_temperature\_over\_time(a, b, c, time\_range):

# """

# Plot temperature over time using a quadratic function.

# """

time = np.array(time\_range)

temperature = quadratic\_solution(a, b, c, time)

plt.plot(time, temperature)

plt.title("Temperature Over Time")

plt.xlabel("Time")

plt.ylabel("Temperature")

plt.grid(True)

plt.show()

def main():

print("Weather Modeling using Quadratic Solution")

# # Hard-coded coefficients

a\_hardcoded=int(input("enter value of a : "))

b\_hardcoded=int(input("enter value of b : "))

c\_hardcoded=int(input("enter value of c : "))

time\_range = np.linspace(0, 10, 100) # Adjust the time range as needed

# # Plot temperature over time using the quadratic function

# plot\_temperature\_over\_time(a\_hardcoded, b\_hardcoded, c\_hardcoded, time\_range)

# if \_name\_ == "\_main\_":

# main()