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import math

# Function to calculate voltage across the capacitor during charging
def voltage_across_capacitor(V0, R, C, t):

    # Use the formula for charging voltage across the capacitor
    
$$V_c = V_0 * (1 - \exp(-t / (R * C)))$$

    Vc = V0 * (1 - math.exp(-t / (R * C)))

    return Vc

# Main function
def main():

    # Input the values for V0, R, C, and t
    V0 = float(input("Enter the supply voltage (V0) in volts: "))
    R = float(input("Enter the resistance (R) in ohms: "))
    C = float(input("Enter the capacitance (C) in farads: "))
    t = float(input("Enter the time (t) in seconds: "))

    # Calculate the voltage across the capacitor
    Vc = voltage_across_capacitor(V0, R, C, t)

    # Output the result
    print(f"The voltage across the capacitor at time {t} seconds is {Vc:.2f} volts")

# Run the main function
if __name__ == "__main__":
    main()
```