TASK 1:

principal = float(input("Enter the principal amount: "))

rate = float(input("Enter the rate of interest: "))

time = float(input("Enter the time in years: "))

compound\_interest = principal \* ((1 + rate/100) \*\* time) - principal

print("The compound interest is:", compound interest)

TASK2:

def calculate\_total\_cost(x, y):

return x\* y

# Input the number of test cases

t = int(input("Enter the number of test cases: "))

# Iterate through each test case

for\_in range(t):

# Input for each test case

x, y = map(int, input().split()) //

# Calculate and print the total amount for the current test case

total\_amount = calculate\_total\_cost(x, y)

print(total\_amount)

TASK3: import math

def calculate area in acres(radius in feet):

# Convert radius from feet to acres (1 acre = 43560 square feet)

area\_in\_acres = math.pi \* (radius\_in\_feet\*\*2) / 43560

return area\_in\_acres

# Input the radius of the field in feet

radius in feet = float(input("Enter the radius of the field in feet: "))

# Calculate and print the area of the field in acres

area\_in\_acres = calculate\_area\_in\_acres(radius\_in\_feet)

print(f "The area of the field is: {area\_in\_acres:.2f) acres")

TASK4 SQFT\_PER\_ACRE = 43560

# Read the dimensions from the user

length = float (input ("Enter the length of the field in feet: "))

width = float (input ("Enter the width of the field in feet: "))

#Compute the area in acres

acres = length \* width / SQFT\_PER\_ACRE

# Display the result

print ("The area of the field is", acres, "acres")

TASK5:

import math

def calculate\_distance(x1, y1, x2, y2):

distance = math.sqrt((x2 -x1)\*2+ (y2 - y1)\*2)

return distance

# Input the coordinates of Ram

x\_ram = float(input("Enter the X-coordinate of Ram: "))

y\_ram = float(input("Enter the Y-coordinate of Ram: "))

# Input the coordinates of Sita

x\_sita = float(input("Enter the X-coordinate of Sita: "))

y\_sita = float(input("Enter the Y-coordinate of Sita: "))

# Calculate and print the distance between Ram and Sita

distance\_between\_them = calculate\_distance(x\_ram, y\_ram, x\_sita, y\_sita)

print(f"The distance between Ram and Sita is: {distance between them:.2f}")