**Activity 11**

Write a python program that accepts the length of three sides of a triangle as inputs. The program should indicate whether or not the triangle is a right-angled triangle. (Use Pythagorean theorem) Also find out its area using Heron’s formula.

def is\_right\_triangle(a, b, c):

    # Check if it's a right-angled triangle using Pythagorean theorem

    sides = [a, b, c]

    sides.sort()

    if sides[0]\*\*2 + sides[1]\*\*2 == sides[2]\*\*2:

        print("It's a right-angled triangle.")

    else:

        print("It's not a right-angled triangle.")

def calculate\_area(a, b, c):

    # Calculate the area using Heron's formula

    s = (a + b + c) / 2

    area = (s \* (s - a) \* (s - b) \* (s - c)) \*\* 0.5

    print("Area of the triangle:", area)

# Get input from the user

side\_a = float(input("Enter the length of side a: "))

side\_b = float(input("Enter the length of side b: "))

side\_c = float(input("Enter the length of side c: "))

# Check if it's a right-angled triangle

is\_right\_triangle(side\_a, side\_b, side\_c)

# Calculate and print the area

calculate\_area(side\_a, side\_b, side\_c)