

## Python Program:

# Program to calculate total expenses of Karan

# Step 1: Assign expenses

books = 150

groceries = 220

transport = 90

# Step 2: Calculate total

total\_expense = books + groceries + transport

# Step 3: Display the result

print("Total expenses incurred by Karan: ₹", total\_expense)

### Sample Input:

(Values are already assigned in the program - no manual input required)


Books = ₹150

Groceries = ₹220

Transport = ₹90

### Sample Output

Total expenses incurred by Karan: ₹460





Task No :- 01

Date :- 5/08/25

Running Python script and various expressions in an interactive interpreter key terms Covered: Introduction to Python, commands, script.

1.1 Karan spent ₹ 150 on books, ₹ 220 on groceries, and ₹ 90 on transport. Help him calculate the total expenses.

Aim :- To write a Python program that calculates the total amount spent by Karan on books, groceries, and transport.

Algorithm :-

Start the program

Accept the amount spent on books, groceries & transport

Calculate the total expenses by summing all three amounts.

Display the total amount spent.

End the program.

Result :- Thus, the amount spent by Karan on books, groceries and transport are proved.



Python Program:

# BMI Calculator

# Step 1: Get input from the user

Weight = float(input("Enter your weight in kilograms: "))

height = float(input("Enter your height in meters: "))

# Step 2: Calculate BMI

bmi = weight / (height \*\* 2)

# Step 3: Display result

print("Your Body Mass Index (BMI) is:", round(bmi, 2))

Sample Input:

Enter your weight in kilograms: 70

Enter your height in meters: 1.75

Sample Output:

Your Body Mass Index (BMI) is: 1.75



Task: 1.2

Date: 6/08/25

Write a BMI calculator. Ask the user for weight (kg) and height (m), then calculate and display their BMI.

Aim: To write a Python program that calculates and displays the Body Mass Index (BMI) of a person using their weight (in kilograms) and height (in meters).

Algorithm:

1. Start the program.
2. Prompt the user to input their weight in kilograms.
3. Prompt the user to input their height in meters.
4. Calculate BMI using the formula:
$$BMI = \frac{\text{weight}}{\text{height}^2}$$
5. Display the calculated BMI.
6. End the program.

Result: Thus, the body mass index of a person using their weight (kg) and height (m) are proved.



## Python Program:-

```
import math
```

# Step 1: Assign side lengths.

```
a = 8
```

```
b = 6
```

```
c = 4
```

# Step 2: Calculate semi-perimeter

$$s = (a + b + c) / 2$$

# Step 3: Apply Heron's formula

$$\text{area} = \text{math.sqrt}(s * (s - a) * (s - b) * (s - c))$$

# Step 4: Display result

```
print "The area of the triangle is:", round(area, 2), "square cm"
```

Sample input

(Values are already assigned)

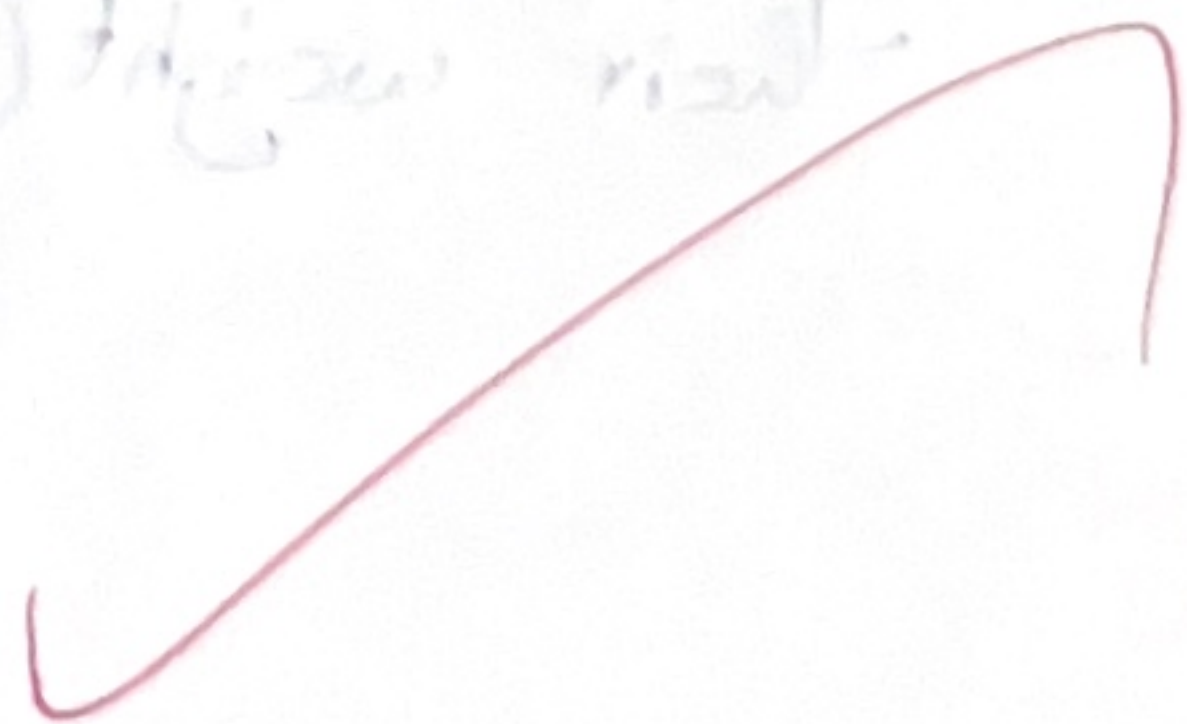
Sides a = 8 cm

Sides b = 6 cm

Sides c = 4 cm

Sample Output

The area of the triangle is : 11.62 square cm





Task: 1.3

Date 6/08/25

Laya wants to calculate the area of a scalene triangle with sides of length 8cm, 6cm and 4cm. Help her write a Python program that computes the area using Heron's Formula

Aim: To write a Python program to find the area of a triangle when the lengths of all three sides are given, using Heron's Formula.

Algorithm:

1. Start the program
2. Accept or assign the lengths of the three sides: a, b & c
3. Calculate the semi-perimeter.

$$s = \frac{a+b+c}{2}$$

4. Use Heron's Formula to calculate the area.

$$\text{Area} = \sqrt{s(s-a)(s-b)(s-c)}$$

5. Display the area of the triangle.
6. End the program.

VEL TECH - CSE	
EX NO.	1
PERFORMANCE (5)	5
RESULT AND ANALYSIS (3)	3
VIVA VOCE (3)	3
RECORD (4)	4
TOTAL (15)	15
SIGN WITH DATE	22/08/25

Result: Thus, the area of triangle when the lengths of all three sides are proved by heron's formula.