Python Program :-

```python
# Python Program to calculate total expenses of
  karan.

# Step 1 : Assign expenses
books = 150
groceries = 220
transport = 90

# Step 2 : Calculate total
total_expense = books + grocerics + transport

# Step 3 : Display the result
print("Total expenses incurred by karan: ₹", total_expense)
```
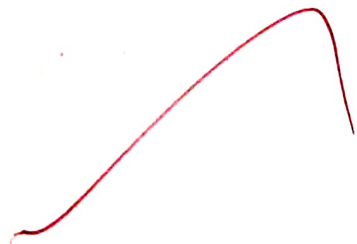
Sample Input :-
  Books = ₹ 150
  Groceries = ₹ 220
  Transport = ₹ 90

Sample output :-
Total expenses incurred by karan : ₹ 460

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

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

Algorithm :-

1. Start the program.
2. Accept the amount spent on books, groceries and transport.
3. Calculate the total expenses by summing all three amounts.
4. Display the total amount spent.
5. End the program.

Result :-

The program was successfully executed and the total amount spent by karan was calculated and displayed as expected.

python program :-

```python
# 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 : 22.86

1.2 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:

$$BMI = \frac{weight}{height^2}$$

5. Display the Calculated BMI.
6. End the program.

Result :-

The program was successfully executed and the total Body mass Index of a person was calculated and displayed as expected.

Python Program:-

```python
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
area = 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")
```
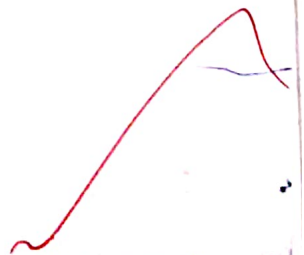
Sample Input:-

Side a = 8 cm
side b = 6 cm
side c = 4 cm

Sample output:-

The area of the triangle is: 11.62 Square cm

1.3 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 and 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 triangle.
6. End the program.

Result :-
The program was successfully executed and the area of the triangle using Heron's formula was calculated and displayed as expected.