

## 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:

books = ₹ 150

groceries = ₹ 220

transport = ₹ 90

sample output:

Total expenses incurred by Karan: ₹ 460

5-08-25

1) Kasan spent ₦150 on books, ₦220 on groceries and ₦90 on transport. Help him calculate expenses.

Aim: To write a Python program that calculates the total amount spent by Kasan 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: Thus, the total amount spent by Kasan on books, groceries and transport are ₦460

## 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: 22.86.

6-08-25

Q2 write a BMI calculator. Ask the user for weight and height(m) then calculate and display their BMI.

Aim

To write a Python program that calculates and displays the Body mass Index of a person using their weight and height

$$w = \text{weight}$$

$$h = \text{height}$$

$$bmi = w / (h * h)$$

### Algorithm

1. Start the program
2. Prompt the user to input their weight in kilograms.
3. Prompt the user to input their height in metres.
4. calculate BMI using the formula

$$\text{BMI} = \frac{\text{Weight}}{\text{height}^2}$$

- 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

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

Side a = 8

Side b = 6

Side c = 4

## Sample output

The area of the triangle is: 11.62

6-08-25

1.3 Laya wants to calculate the area of a scalene triangle with sides of length 8cm, 6cm and 10cm Help her to write Python program

Aim: To write a Python program to find the area of a triangle when the length 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 a triangle
- 6) end the program

VEL TECH COLLEGE	
EX NO.	1
PERFORMANCE (5)	5
RESULT AND ANALYSIS (3)	3
VIVA VOCE (3)	3
RECORD (4)	4
TOTAL (15)	15
SIGN WITH DATE	18/08/2018

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