

Sample Input:

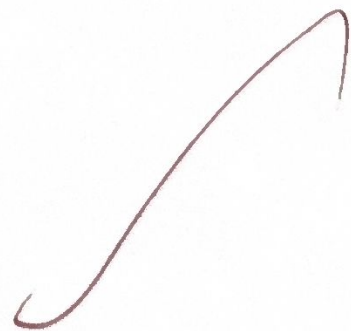
Books = ₹ 150

groceries = ₹ 220

Transport = ₹ 90

Sample Out:

Total Expenses incurred by Karan : ₹ 460



6/8/25

Task-1

Running Python Script and various expressions in an Interactive interpreter key Terms Covered

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

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

Algorithm:

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

Program:

```
# program to calculate total expenses of karan  
# step 1: Assign expense  
books = 150  
groceries = 220  
transport = 90  
# step 2: calculate total  
total_expense = books + groceries + transport  
# step 3: Display the result  
print(f"Total expense incurred by karan: ₹", total_expense)
```

Result:

Thus total amount spent by karan on books, groceries, and transport are proved

✓

sample Input

Enter your weight in kilogram: 70

Enter your height in meter: 1.75

Sample out

Your body mass Index [BMI] is : 22.86

12 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 meter
- 4) Calculate BMI using the formula:

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

- 5) Display the calculated BMI
- 6) End the program.

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))
```

Result:

Thus the Body mass Index of a person using their weight (kg) & height (m) are proved

Sample Input

Side a=8cm

Side b=6cm

Side c=4cm

Sample output

The area of the triangle is : 11.62 Square cm

is Laya wants to calculate the area of a triangle with sides of length 8m, 6m and 4m. 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

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
```

```
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 m")
```

Result: This is the area of triangle when the length of all three sides are given. The area is 10.33 square m.

TECH - C++	
S. NO.	1
PERFORMANCE (5)	5
RESULT AND ANALYSIS (3)	3
VIVA VOCE (3)	3
RECORD (4)	4
TOTAL (15)	15
DATE	15/11/23