

Task-1

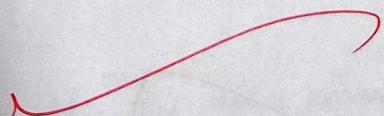
Date : 4/8/25

Ques:- Karan spent 150/- on books, 220/- on groceries and 90/- on transport. Help calculate the total expense.

Aim:- To write a python program that calculates the 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.



Python Program:-

```
# program to calculate total expenses of karan
```

```
# Step 1: Assign expenses
```

```
books = 150
```

```
groceries = 220
```

```
transport = 90
```

```
# step2: calculate total
```

```
total_expense = books + groceries + transport
```

```
# step3: Display the result
```

```
print ("Total expenses incurred by karan: ₹", total_expenses)
```

Sample Input:-

(values are already assigned in program - no manual input)

Books = ₹150

groceries = ₹220

Transport = ₹90

Sample Output:-

Total expenses incurred by karan: ₹460.

Python program:-

- # BMI calculator
- # step1 : get input from the user.
weight = float(input("Enter your weight in kilograms:"))
height = float(input("Enter your height in meters:"))
- # step2 : calculate BMI
bmi = weight / (height ** 2)
- # step3 : display result
printf('Your body mass index (BMI) is: %d', 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.

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Q.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 input their weight in kilograms
3. Prompt user to input their height in meters.
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 provd.

Python program:-

import math

step1: Assign side lengths

$$a = 8$$

$$b = 6$$

$$c = 4$$

step2: calculate semi-perimeter

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

step3: Apply Heron's formula

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

step4: Display result

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

Sample input:-

(values are already assigned)

Side a = 8cm

Side b = 6cm

Side c = 4cm

Sample output:-

The area of the triangle is: 11.62 square cm.

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Q3:- Layawands to calculate the area of scalene triangle with sides of length 8cm, 6cm, 4cm. Help write a python Using heron's formula.

Aim:- To write a python program to find the area of 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 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 triangle
6. End the program.

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

VEL TECH - CSE	1
EX NO.	5
PERFORMANCE (5)	8
RESULT AND ANALYSIS (5)	8
VIVA VOCE (5)	
RECORD (5)	
TOTAL (20)	16
SIGN WITH DATE	10/10