

Aims and Objective:

1. Use variables to manipulate data in program
2. Perform simple calculation with various operator
3. Generate specific program output using formatted string

1. Write a program to calculate the area of a rectangle. User input are two integers, which are the width and height of a rectangle. The program computes and outputs the area of the rectangle with the following format.

(Note: words in red are inputted by user, not program output)

Case	Sample Input / Output
1	Please enter the width 3 Please enter the height 5 The area is 3*5=15
2	Please enter the width 7 Please enter the height 9 The area is 7*9=63

2. Write a program to get the weight (*in kilograms*) and height (*in meters*) of a person. Then calculate and print the Body Mass Index (BMI) (to 2 decimal places) according to the formula:

$$BMI = \frac{weight(kg)}{height(m) \times height(m)}$$

(Note: words in red are inputted by user, not program output)

Case	Sample Input / Output
1	Enter your height in m: 1.8 Enter your weight in kg: 60.2 Your BMI is 18.58
2	Enter your height in m: 1.65 Enter your weight in kg: 50 Your BMI is 18.37

To print a line without carrier-return (new line) use:

`print(string_to_print, end='')`

3. Write a program that reads in the number of seconds and converts it to minutes and seconds. A sample output of your program is as follows.

(Note: words in red are inputted by user, not program output)

Case	Sample Input / Output
1	Please enter the number of seconds: 5000 5000 second(s) = 83 minute(s) 20 second(s)
2	Please enter the number of seconds: 3600 3600 second(s) = 60 minute(s) 0 second(s)

4. Extend the program in (3) such that the program converts the input into hours, minutes and seconds. A sample output of your program is as follows.

(Note: words in red are inputted by user, not program output)

Case	Sample Input / Output
1	Please enter the number of seconds: 5000 5000 second(s) = 1 hour(s) 23 minute(s) 20 second(s)
2	Please enter the number of seconds: 6000 6000 second(s) = 1 hour(s) 40 minute(s) 0 second(s)
3	Please enter the number of seconds: 3500 3500 second(s) = 0 hour(s) 58 minute(s) 20 second(s)