

## CS111 Homework 1 (Due Sep 18, 2018)

Name your program **hw1.cpp**. Program must be able to compile or you will get at most 1 out of 2 points for the assignment.

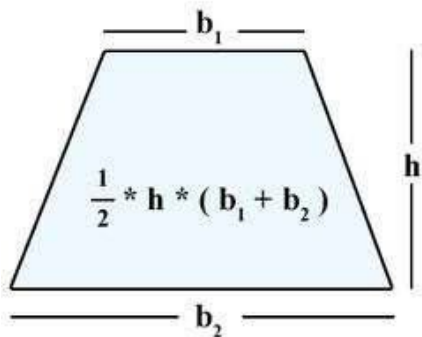
Write **one single** complete C++ program to do all sections below:

### A. Ideal Body Weight Estimation (Ch.1 Q.12 in the textbook)

A simple rule to estimate your ideal body weight is to allow 110 pounds for the first 5 feet of height and 5 pounds for each additional inch. Write a program with a variable for the height of a person in feet and another variable for the additional inches and input values for these variables from the keyboard.

Assume the person is at least 5 feet tall. For example, a person that is 6 feet and 3 inches tall would be represented with a variable that stores the number 6 and another variable that stores the number 3. Based on these values calculate and output the ideal body weight in pounds.

B. Write a program that computes the area of Trapezoid. Unknown values should be input by user. Input values don't have to be whole numbers. Also, the area should be a double.



Here's a sample **input** and output:

```
[ctse@venus ans]$ ./hw1_fa18_sol
```

Part A:

```
How tall are you? (If you are 6 ft 3, enter 6 3) 6 3
```

```
Your ideal body weight is 185 pounds.
```

Part B:

```
What is the height of the trapezoid? 3.0
```

```
What is the base 1 of the trapezoid? 3.1
```

```
What is the base 2 of the trapezoid? 11.9
```

```
The area of the trapezoid is: 22.5
```