# CSCI-2467 Lab 3 – Body Mass Index

## Background

The Body Mass Index (BMI) is a calculation used to categorize whether a person’s weight is at a healthy weight for a given height. The formula is as follows:

bmi = kilograms / (meters2)

where kilograms = person’s weight in kilograms, meters = person’s height in meters

BMI is then categorized as follows:

|  |  |
| --- | --- |
| Classification | BMI Range |
| Underweight | Less than 18.5 |
| Normal | 18.5 or more, but less than 25.0 |
| Overweight | 25.0 or more, but less than 30.0 |
| Obese | 30.0 or more |

To convert inches to meters:

meters = inches / 39.37

To convert pounds (lbs) to kilograms:

kilograms = lbs / 2.2046

## Assignment

Ask the user for their weight in pounds and height in inches. Compute their BMI and BMI classification and output the results.

The program **must** implement and use the following methods:

convertToKilograms – convert pounds to kilograms

convertToMeters – convert inches to meters

calcBMI – take weight in kilograms and height in meters and return the BMI

bmiClassification – take the value for the BMI and return a String with the BMI classification

Use the following code as a starting point for your assignment:

**package** edu.cscc;  
  
**import** java.util.Scanner;  
  
*//* ***TODO Student name, date, purpose*public class** Main {  
  
 **private static** Scanner *input* = **new** Scanner(System.***in***);  
  
 **public static void** main(String[] args) {  
 **double** lbs, inches, meters, kgs, bmi;  
 String classification;  
  
 *//* ***TODO add code here*** }  
  
 *//* ***TODO add your methods here (make them static)***}

As always use the package name *edu.cscc* and include a comment with your name, the date, and the purpose of the program.

## Example Output

Calculate BMI

Enter weight (lbs): **200**

Enter height (inches): **72**

Your BMI is 27.124767811523153

Your BMI classification is Overweight