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:

$$bmi = kilograms / (meters^2)$$

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