

CS 112 Assignment 3b

Submit your finished code to the Dropbox. You will need to pass off the assignments with the TA or tutor during their office hours (their information is in the CS 112 Course Information section of the Table of Contents), or the instructor in class. Follow the formatting guide which is also found in the CS 112 Course Information section.

Read the instructions carefully. Make sure your output matches the example run.

Program: Computing Body Mass Index

Body Mass Index (BMI) is an indication of a person's health. It is calculated using a person's height and weight using the following formula: **BMI = kg/m²**

Here in the United States we still use the Imperial system of measurements and must convert our weight measured in pounds into kilograms and our height measured in inches into meters. This is easily done using the following formulas:

$$\text{kg} = 0.45359237 * \text{pounds}$$

$$\text{m} = 0.0254 * \text{inches}$$

Table showing the interpretation of the BMI number:

| BMI | Interpretation |
|-------------|-----------------------|
| Below 18.5 | Underweight |
| 18.5 – 24.9 | Normal |
| 25.0 – 29.9 | Overweight |
| Above 30.0 | Obese |

Your assignment is to write a program that:

1. Asks a user for a person's height in inches and their weight in pounds
2. Converts this data into kilograms and meters
3. Calculates the person's BMI
4. Outputs the person's BMI (rounded to two decimal places) and the corresponding interpretation as shown in the table above.

Example Run

```
In this program we will calculate a person's BMI.
```

```
Please enter a person's height in inches: 70
```

```
Please enter a person's weight in pounds: 146
```

```
The person's BMI is: 20.95. The person has a BMI classification of: Normal
```

```
>>>
```