

CSCI 215: Website Programming

Lab 3: JavaScript, Variables, and Calculations (10 points)

Assignment

Compute the Body Surface Area (BSA), Ideal Body Weight (Male or Female), and Body Mass Index (BMI) values using the JavaScript programming language.

When finished, upload a zip file that contains your file to Dropbox.

To check the correctness of your calculations, you may use this website:
<http://www.medcalc.com/body.html>

If you complete the lab early, for extra credit, try validating the input. Must click Male or Female. Must enter something in the weight and height field. Must be a number in the weight and height field.

Calculations

$$\text{Body Surface Area (BSA)} = \sqrt{\frac{\text{height}(cm) * \text{weight}(kg)}{3600}}$$

$$\text{Ideal Body Weight (Men)} = 50 + 2.3 * (\text{height}(in) - 60)$$

$$\text{Ideal Body Weight (Women)} = 45.5 + 2.3 * (\text{height}(in) - 60)$$

$$\text{Body Mass Index (BMI)} = \frac{\text{weight}(kg)}{\text{height}(m)^2}$$

Zip file (Lab3.zip)

Contains the following files

- presentation.css (CSS) – do not modify
- structure.html (HTML) – do not modify
- behavior.js (JavaScript) – **you modify per the comments**

Hints

Calculate Square Root

Syntax: `Math.sqrt(x)`
Description: returns the square root of x

Calculate Power

Syntax: `Math.pow(x, y)`
Description: returns the value of x raised to the power of y

Multiplication

Syntax: `a * b`
Description: returns a times b

Division

Syntax: `a / b`
Description: returns a divided by b

Addition

Syntax: `a + b`
Description: returns a plus b

Subtraction

Syntax: `a - b`
Description: returns a minus b