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\* Unit 3 Activity 7 Program/Question 4

\* This program will calculate a person's BMI and outputs an appropriate response, depending on their BMI.

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import java.io.BufferedReader;

import java.io.IOException;

import java.io.InputStreamReader;

import javax.swing.JOptionPane;

import java.text.DecimalFormat;

public class BodyMassIndex

{

public static void main(String[] args) throws IOException

{

/\*

\* Metric inputs - 60.5, 1.5

\* Imperial inputs - 120.5, 68.5

\*/

int system;

BufferedReader input = new BufferedReader(new InputStreamReader (System.in));

System.out.println("BMI Calculator v.1.0");

System.out.println("Please select your preffered system.");

System.out.println("====================================");

System.out.println("1 for Metric System");

System.out.println("2 for Imperial System");

system = Integer.parseInt(input.readLine());

switch (system)

{

case 1: Metric();

break;

case 2: Imperial();

break;

default: System.out.println("Invalid input... Restart.");

}//end switch

}//end main

public static void Metric()

{

double bmi = 0, weight = 0, height = 0;

DecimalFormat twoDigit = new DecimalFormat ("###,###.##");

weight = Double.parseDouble(JOptionPane.showInputDialog(null,"Input your weight (kg)", "Input", JOptionPane.QUESTION\_MESSAGE));

height = Double.parseDouble(JOptionPane.showInputDialog(null,"Input your height (m)", "Input", JOptionPane.QUESTION\_MESSAGE));

bmi = weight / (height \* height);

System.out.println("Your weight (kg): " + weight);

System.out.println("Your height (m): " + height);

System.out.println("Your BMI is " + twoDigit.format(bmi));

bmiTotal(bmi);

}//end method, metric

public static void Imperial()

{

double bmi = 0, weight = 0, height = 0;

DecimalFormat twoDigit = new DecimalFormat ("###,###.##");

weight = Double.parseDouble(JOptionPane.showInputDialog(null,"Input your weight (lbs)", "Input", JOptionPane.QUESTION\_MESSAGE));

height = Double.parseDouble(JOptionPane.showInputDialog(null,"Input your height (in)", "Input", JOptionPane.QUESTION\_MESSAGE));

bmi = (weight \* 703) / (height \* height);

System.out.println("Your weight (lbs): " + weight);

System.out.println("Your height (in): " + height);

System.out.println("Your BMI is " + twoDigit.format(bmi));

bmiTotal(bmi);

}//end method, imperial

public static void bmiTotal(double bmi)

{

if (bmi < 15)

{

System.out.println("You are in starvation.");

}//end if

if (bmi >= 15 && bmi < 18.5)

{

System.out.println("You are underweight.");

}//end if

if (bmi >= 18.5 && bmi <= 25)

{

System.out.println("Your bmi is ideal.");

}//end if

if (bmi > 25 && bmi <= 30)

{

System.out.println("You are overweight.");

}//end if

if (bmi > 30 && bmi <= 40)

{

System.out.println("You are obese.");

}//end if

if (bmi > 40)

{

System.out.println("You are morbidly obese.");

}//end if

}//end method, bmiTotal

}//end class