One way that we define overweight and obesity is by using a person’s height and weight to calculate BMI (Body Mass Index). For most people, BMI indicates the amount of body fat content. We will learn how to calculate BMI and then find out the

value of your BMI.

BMI = Weight (kg)/Height2 (m2)

**Example:**

Chris is 5 feet 2 inches and weighs 105 lbs.

What is Chris’ BMI?

Take a person’s height and convert it to inches

What is Chris’ height in inches?

*5 feet x (12 inches/1 foot) = 60 inches*

*60 inches + 2 inches = 62 inches*

Multiply by 2.54 to get the height in centimeters

What is Chris’ height in centimeters (cm)?

*62 inches x (2.54 cm/1 inch) = 157cm*

Divide by 100 to get the height in meters

What is Chris’ height in meters (m)?

*157 cm x (1 m/100cm) = 1.57 m*

Square it (multiply by itself)

What is the square of Chris’ height (m2)?

*1.57m x 1.57m = 2.46 m2*

Take the person’s weight in pounds (lbs.) What is Chris’ weight in lbs?

*105 lbs*

Divide by 2.2 to get the weight in kilograms (kg) What is Chris’ weight in kg?

*105 lbs x (1kg/2.2 lbs) = 47.72 kg*

What is Chris’ BMI?

We use the formula: BMI = Weight (kg)/Height2 (m2)

*47.7 kg/ 2.46 m2 = 19.3 kg/m2*

**Now Calculate Terry’s BMI:**

Terry is 5 ft 5 in tall and weighs 135 lbs. What is Terry’s BMI? (Show Your Work)

What is Terry’s height in inches?

What is Terry’s height in centimeters (cm)?

What is Terry’s height in meters (m)?

What is the square of Terry’s Height (m2)?

What is Terry’s weight in lbs? What is Terry’s weight in kg? What is Terry’s BMI?

Use the formula: BMI = Weight (kg)/Height2 (m2)

What is Terry’s weight category?

What other factors could influence Terry’s fitness and nutritional health?

**Student Data:**

Student 1: Male, 5ft 6in, 170 lbs, exercised daily, running and weight training, eats a well-balanced diet.

Student 2: Male, 5ft 8 in, 130 lbs, sedentary with no exercise,

eats a lot of fast food and snacks, usually skips breakfast and lunch.

Student 3:Female, 5ft 2in, 100 lbs, exercises 3 times per week, including running,

eats a lot of fast food and snacks

Student 4: Female, 5ft 4in, 110 lbs, sedentary, eats a well-balanced diet

Based on the information above, do you think that any of these students are overweight? Who and why?

Based on the information above, which students do you think are healthiest? Who and why?

**Now calculate the BMI and weight category for these students:**

Student 1: BMI =

Weight Category =

Student 2: BMI =

Weight Category =

Student 3: BMI =

Weight Category =

Student 4: BMI =

Weight Category =

Did the BMI and weight category of any of these students surprise you? Explain.

Have you changed your opinion about the students’ health? Explain.