**BMI**

**Body mass index (BMI)** is a value derived from the mass (weight) and height of a person. The BMI is defined as the body mass divided by the square of the body height, and is expressed in units of kg/m², resulting from mass in kilograms and height in meters.

The BMI is a convenient rule of thumb used to broadly categorize a person as underweight, normal weight, overweight, or obese based on tissue mass (muscle, fat, and bone) and height. Major adult BMI classifications are underweight (under 18.5), normal weight (18.5 to 25), overweight (25 to 30), and obese (30 or more).

Formula:

\[
BMI = \frac{\text{mass}_{\text{kg}}}{\text{height}_{\text{m}}^2} = \frac{\text{mass}_{\text{lb}}}{\text{height}_{\text{in}}^2 \times 703}
\]

```cpp
#include <iostream>
#include <string>
using namespace std;

int main()
{
    cout << "-- BMI Calculator --" << endl;

    double weight, height, height_feet, height_inches;
    cout << "Please input your weight in pounds: ";
    cin >> weight;
    cout << "Please input your height in feet and inches: ";
    cin >> height_feet >> height_inches;
    height = height_feet * 12 + height_inches;
    cout << "Your height is " << height << " inches" << endl;
    double bmi = weight / (height * height) * 703;
    cout << "----- " << endl;
    cout << "Your BMI is " << bmi << "." << endl;
    cout << "You are ";
    if ( bmi < 18.5 )
    cout << "underweight." << endl;
    else if ( bmi < 25 )
    cout << "normal weight." << endl;
    else if ( bmi < 30 )
    cout << "overweight." << endl;
    else
    cout << "obese." << endl;
    return 0;
}
```