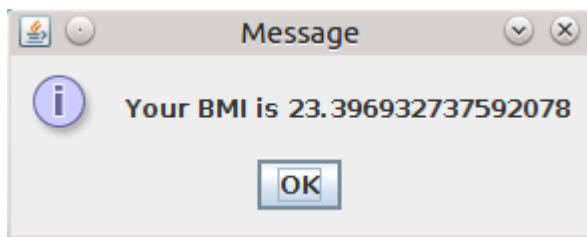


**Problem 1**

Write a program which asks the user, by means of an object of type **Scanner**, to enter his/her height (in meters, as **double**), then the weight (in kilograms, also as a **double**). Then the program displays in a message box (**JOptionPane.showMessageDialog**) his/her BMI coefficient (*body mass index*) defined as the weight in kilograms divided by the square of height in meters — this number should come out close to 20.

**Problem 2**

Write a program which reads three natural numbers, **a**, **b** and **c**, and then prints "OK" if any two of them are equal, but the third is different, and "NOT OK" otherwise.

**Problem 3**

Write a program which reads three integers (say, **a**, **b** and **c**) and then rearranges them in such a way that **a** contains the smallest of these three numbers, **b** — the middle one, and **c** — the largest. It is possible that two (or all three) numbers are equal. **Do not use arrays or Strings!**

**Problem 4**

Write a program which reads three natural numbers, **a**, **b** and **c**, and then prints "OK" if for any two of them their sum is strictly larger than the third (in other words, if a triangle with side lengths equal those numbers exists), and "NOT OK" otherwise.

**Problem 5**

Write a program which reads three numbers, **a**, **b** and **c**, and then finds and prints the middle (by value) of them. Variables **a**, **b** and **c** should not be modified.

**Problem 6**

Write a program which asks the user, using **JOptionPane** dialog boxes or an object of type **Scanner**, for three coefficients of a quadratic equation

$$ax^2 + bx + c = 0$$

and then displays the values of the roots of this equation if they exist (or complex roots, if you know how to do it). The program should give an answer always, no matter what the values of coefficients are. Attention: to calculate square root of a number, say **z**, use **Math.sqrt(z)**.