Software Development 1

PBL Week 2

Use template provided for solutions.

Write the pseudo-code solutions for the following problems:

1. Write the pseudo-code that inputs the year a person is born and outputs the age of the person in the following format:

    You were born in 1990 and will be (are) 23 this year

2. A quantity known as the body mass index (BMI) is used to calculate the risk of weight-related health problems. BMI is computed by the formula

    $$BMI = w / (h/100.0)^2$$

    where **w** is weight in kilograms and **h** is height in centimetres. A BMI of about 20.0 to 25.0 is considered "normal". Design the solution that accepts weight and height and outputs the BMI.

3. Your weight is actually the amount of gravitational attraction exerted on you by the Earth. Since the Moon's gravity is only one-sixth of the Earth's gravity, on the Moon you would weigh only one-sixth of what you weigh on Earth. Write the pseudo-code that inputs the user's Earth weight and outputs her or his weight on Mercury, Venus, Jupiter and Saturn. Use the values in the following table:

Planet	Multiply the Earth weight by
Mercury	0.4
Venus	0.9
Jupiter	2.5
Saturn	1.1