This time you can freely choose between two works, 2a and 2b. You only need to do the other, not both! This is work 2b:

In this work we study the growth of an amount of money deposited in a savings account. The capital grows according to the formula

(1) $$(end\ of\ year\ capital) = (beginnig\ of\ year\ capital) \cdot \frac{100 + interest\ rate + bonus}{100} \quad .$$

The bank pays a bonus, if there is enough money in the account. If the capital in the beginning of a year is over 10000€, the bonus is 2%, otherwise zero. Write a program that calculates the growth of the amount of money over a given number of years using Eq. (1). The initial capital, the savings time, and the interest rate are to be read from the user in the main function. Calculating the final capital must be done in a separate function. The function prototype could look like this:

```
double compcapital(int time, double initcapital, double interestrate);
```

The program should print the final capital at the end of the savings time, and tell the user if the capital has doubled since the beginning. All printing should be done from the main function. Run your program with an initial capital of 7000€, savings time of 15 years and with interest rates 3.0% and 5.0%. Include the results to your work report.