

C++ Fundamentals: Exam 1

The following tasks should be submitted to the SoftUni Judge system, which will be open starting **Sunday, 20 January 2019, 09:00** (in the morning) and will close on **Sunday, 20 January 2019, 15:00**.

For this exam, the code for each task should be a single C++ file, the contents of which you copy-paste into the Judge system.

Please be mindful of the strict input and output requirements for each task, as the tasks are evaluated automatically and not following the requirements strictly may result in your program's output being evaluated as incorrect, even if the program's logic is mostly correct.

You can use C++03 and C++11 features in your code.

Unless explicitly stated, any integer input fits into **int** and any floating-point input can be stored in **double**. On the Judge system, a C++ **int** is a **32-bit** signed integer and a C++ **double** is a **64-bit** IEEE754 floating point number.

NOTE: the tasks here are NOT ordered by difficulty level.

Task 4 – Costs

Write a program that calculates **monthly** costs of a family. The **family** is from **3** persons (**Mother, Father, Son**) **CONSUMPTIONS** and **BENEFITS** per all month

- Water
- Gas
- Needed money of Child (40 per month)
- Rent
- Electrical energy
- Mother Salary
- Father Salary

ALL the needed costs and salaries can **NOT** be **NEGATIVE** or **ZERO**!

For the calculates you have:

Daily electrical price per KW/h = 0.13;

Night electrical price per KW/h= 0.07;

Number of days = 30;

Water cost per cm3 = 1.65;

Gas cost per cm3 = 0.09;

You have to calculate TOTAL (per Month):

- Water costs
- Gas costs
- Electrical Energy costs
- All Costs
- Remaining Salary
- Money for 1 day

THE INPUT SHOULD BE:

- 1) Water consumption in cm3
- 2) Gas consumption in cm3
- 3) Daily energy in kw
- 4) Rent
- 5) Night energy in kw
- 6) Mother Salary
- 7) Father Salary

Example I/O

Example Input	Expected Output
5 3 32 600 17 1500 1700	Water : 8.25 Gas : 0.27 Energy : 5.35 All costs : 653.87 Remaining Salary : 2546.13 Money for one day : 84.871
10 10 10 10 10 10 99999	Water : 16.5 Gas : 0.9 Energy : 2 All costs : 69.4 Remaining Salary : 99939.6 Money for one day : 3331.32