Exercise 10

1. Open the file `h10t01.c`.

   a) Comment *all* commands. Make sure you understand all commands. Also figure out what each of the functions are supposed to do.

   c) Execute the program in debug mode. Observe the values of the variables and see how the execution progresses in the file.

2. Write a program which takes as argument for the main program the name of a file, and writes to the file the file name, the date, and the user name.

3. Write a function which tests whether a given string array is in alphabetical order. Using this function, write a program which orders a string array into alphabetical order. Do this in three ways:

   a) The user enters the words during the execution of the program.

   b) The words are read from a file.

   c) The words are given as arguments for the main program.

4. Find out how the following functions work, and do the given tasks:

   atoi Write a program which takes as argument for the main program an integer and rounds it up to the nearest multiple of 20.

   atof Write a program which takes as argument for the main program a real number and rounds it to accuracy of 1/100.

   Hint: In the header file `math.h` *there are the functions* `ceil` *and* `floor` *which round a real number up or down to the nearest integer.*