Develop a program in sqrt.cpp to compute the square root of a double using Newton's method.

The main function should take in either one or two command line arguments, both of which are doubles.

- The first argument is the number of which to take the square root. It is, of course, a required argument.
- The second argument is optional. It is the value of epsilon, the amount by which the abs(last_guess - next_guess) is allowed to differ. If no argument is supplied, espilon should be set to 1e-7, which is 10^{-7}.

You must implement the function that has the following header:

double sqrt(double num, double epsilon)

The algorithm breaks down as follows:

1. Return numeric_limits<double>::quiet_NaN(), if the num < 0. This constant is found in the limits header.
2. Return num, if num is 0 or 1.
3. Repeat next_guess = (last_guess + num/last_guess) / 2 until abs(last_guess - next_guess) <= epsilon.
4. Ultimately, return the last value of next_guess.

The output should be displayed with fixed notation and 8 digits of precision after the decimal point. You will need to include the iomanip header to modify the output format.

Use the following script to test your work. It must pass the test cases on your lubuntu virtual machine. Copy the script to the folder where your source code and makefile reside, and run it with the command:

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bash test_sqrt.sh
```

Submit a zip file containing both sqrt.cpp and your makefile.

Make sure you have your name (including any last names suffixes, like Jr., just like it appears in Canvas) and pledge (with correct spelling, punctuation, and capitalization) in a header at the top of the file. An example header is provided under the General Information Canvas module.