You are given an executable file named "decode" . Your lab instructor will you the path and location for the file.

The program receives a integer number as a command line argument and compare it with a "predefined constant value".

For example

./decode 123

If the command line argument is equal to the "predefined constant value", the program prints a message that congratulate you on finding the correct value. Otherwise, it will print "Not the right combination. Keep hacking."

Your goal is to find the "predefined constant value". i.e. a hardcoded value in the source code.

To start, create a copy of the executable file in your local directory with a command like this:

cp [DIRECTORY OF FILE]/decode .

Next, create the assembly code corresponding to this executable file. You can use objdump to disassemble the executable code and save it in a .s file, like this

objdump -d decode > out.s

Next, try to find the "predefined constant value" in your assembly code. Submit the "predefined constant value" you found on BB.

Hint 1: Look at the part of the assembly code, which implement the C main function.

Hint 2: Look for instruction of type "cmp", which compares two values.

**More optional food for thoughts**

1. If you did not want to use or did not know about assembly, what other approach could be a solution? Would it work? Try to analyze your solution.

2. If you like to practice more complex problems, then try to solve the bomb lab. You can find it here http://csapp.cs.cmu.edu/2e/labs.html