**ECE 1111: Engineering Computation I**

**Homework No. 4: Basic Logical Operators**

**Goal:** Demonstrate that you understand how to use basic logical expressions in combination with simple I/O operations.

**Description:** Create a file containing ASCII text. For example:

nedc\_000\_[1]: more v.txt

# an example file

#

this is a sample file

27.0

another line of text

3

yet another line of text

The tasks in this homework assignment are:

1. Write a program that reads any file by specifying the filename from the command line. This program should print the line number and the contents of each line.
2. If a line contains a number, print the line number and the message below (“3” is the line number):

3: number: the value is 27.0000

1. If the line contains a hash mark (checksum: “#”), print the line number and the full line:

0: comment: # an example file

1: comment: #

1. If the line does not contain a number, print the line delimited as follows:

2: text: this is a sample file

4: text: another line of text

6: text: yet another line of text

1. If the line contains a number in the range [25,75], also print:

3: \*\*> this is your lucky day!"

(line number followed by the message) in addition to the output from no. 2.

Submit your code into the directory:

/data/courses/ece\_1111/current/homework/hw\_04/lastname\_firstname

in a file named *myprog.cc*. This program must compile with a make file. The program must run using the command “*myprog.exe <file.txt>*” where “*<file.txt>*” can be any text file specified by the user.

Your grade will depend entirely on the degree to which you meet the above requirements and the extent to which your code is properly commented and documented.