

of by proper synchronization). In addition, you should describe some of the different versions of your program that you tried, what performance results you got out of them, and why you think your current version is reasonably efficient (or what more you could do to make it more efficient).

Suggestions:

- Gaussian elimination involves $O(n^3)$ operations. The back substitution stage requires only $O(n^2)$ operations, so you are not expected to parallelize back substitution.
- The algorithm should scale, assuming N is much larger than the number of processors.
- There should be clear comments at the beginning of the code explaining your algorithm.

Note on cheating: There are penalties for cheating. Don't find out the hard way. Working in groups is fine for discussing approaches and techniques. Copying problem solutions or code is cheating. Both the person copying and the person giving the answers will be equally penalized. Make sure you do your own work. Also, make sure your code can't be copied by other students in the cluster. To do that, you can change every file permissions with `chmod 700 file.c`, or you can protect your whole home directory with `chmod 700 /home/username`.