Assignment 4: Coding. Due 2/28

Application of Guassian Elimination (in $\mathbb{Z}_2$) to Decoding Binary Strings.

Message to Decode: Look in your D2L locker I have set up for 3 files: `worker1Data.txt`, `worker2Data.txt`, and `worker3Data.txt`. Download and place these files in the same folder in as your code for the assignment (or change the path in `receiveWorkerData.`)

DO Makes Changes the following functions. (They are currently skeletons)

1. `preProcess1.m`: Does worker #1's preprocessing. It will take the bit stream (which is in 16 bit groups), extract first 6 bits, and place them in a 2D array with 6 rows, and n columns (where n is the number of characters.)
2. `preProcess2.m`: Does worker #2's preprocessing. It will take the bit stream (which is in 24 bit groups), extract bits 3,5,7,11,13,16, and place them in a 2D array with 6 rows, and n columns (where n is the number of characters.)
3. `preProcess3.m`: Does worker #3's preprocessing. It will take the bit stream (which is in 12 bit groups), extract bits 2,4,6,8,10,12, and place them in a 2D array with 6 rows, and n columns (where n is the number of characters.)
4. `gelimMod2.m`: Solve $Ax = b$ for binary matrix A and column vector b. Currently returns garbage answer.

Do not change the following files...

- `bits2char.m`
- `char2bits.m`
- `getManagerTools.m`
- `getWorkerTools.m`
- `receiveWorkerData.m`
- `mainFcn.m`
- `printDecodedMessage.m`

To See If You Correct... Type and enter `mainFcn;` at the command line; and in few seconds you should a get readable message printed out.

What to turn in: Take a screenshot or copy/paste the text of your decoded message and paste into the D2L Dropbox.