

## Lab 5 Assignment

Due on 06/5 at noon on Blackboard.

Submit your m-file and a diary that shows how you tested the code.

Create a function `csolve.m` with input a matrix  $A$  and no output. The function should display the rank and the pivot and free variables of  $A$ . Test it using the matrix below.

$$A = \begin{pmatrix} 5 & 5 & 5 & 4 & 6 \\ 1 & 0 & 2 & 3 & -5 \\ 9 & 12 & 6 & 9 & -8 \\ 2 & 1 & 3 & -5 & 7 \end{pmatrix}$$

Your display should be precisely the following:

```
>> csolve(A)
The rank of the coefficient matrix is 4.
Pivot variables: 1 2 4 5
Free variables: 3
```

*Tip:* Use the `for` structure to display pivot and free variables.