MATLAB 0

There is one exercise for practice in this assignment.

Exercise

`5 points [Extra Credit]`

Creating Vectors

- Enter each entry manually and compare vectors u and v.
  - `u = [1 3 5 7]`
  - `v = [1; 3; 5; 7]`
- Generate the row vector with entries from 1 to 7 in step of 1 (or 2):
  - `w = 1:7` or `w = [1:7]`
  - `x = 1:2:7` or `x = [1:2:7]`

Creating Matrices

- Create the matrix $A = \begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \end{bmatrix}$ manually. What's the output result for each code?
  - `A_11 = A(1,1)`
  - `A_23 = A(2,3)`
  - `A2 = A(2,:)`
  - `A3 = A(:,3)`
- Generate a random matrix:
  - `B = randi([-10,10],6,4)`
  - Compare two matrices: `B2 = B(2:5,2:4)` and `B3 = B([2 5], 2:4)`

Solving Linear Systems

- Combine matrices and/or vectors: `aug = [A b]`
- Use RREF to solve a linear system: `rref(A)` -- RREF of matrix A
  - `rref_Ab1 = rref([A b])`
  - `[rref_Ab2, pivcols] = rref([A b])`

    Notice: `rref_Ab1` is equal to `rref_Ab2`.
- Use rank_comp to solve a linear system