

Assignment # 4

Due Friday 27 February at start of class

“M|O|P” = MATLAB|OCTAVE|PYLAB.

Exercise 4.1. (b), (c), and (d)

Exercise 4.4.

Exercise 5.1.

Exercise 5.3.

Exercise 5.4. *Hint:* See Lecture 31. (Without this hint I find this problem too hard. Either I don't have the time to fiddle, or, alternatively, I don't have the insight, to get the answer. With the hint it is ... easy.)

P11. Find and use the SVD command in M|O|P. In particular, compute both the full and the reduced SVD of

$$A = \begin{bmatrix} 3 & 0 & 2 \\ -6 & 7 & -1 \\ -3 & 7 & 1 \\ 0 & 7 & 3 \\ -12 & 14 & -2 \end{bmatrix}$$

What is the rank of A ? Explain how the “rank” command works.