

18.06 Problem Set 10

Due **Monday**, 29 November 2010 at 4pm in the undergrad math office. Please note that the problems from the textbook are out of the 4th edition: make sure to check that you are doing the correct problems. For MATLAB problems, please include a printout of your code with your problem set. You can type `diary('filename')` at the beginning of your session to save a transcript, and `diary off` when you are done.

Each Problem worth 10 points.

1. Do problem 5 from section 6.5.
2. Do problem 26 from section 6.5.
3. Do problem 6 from section 6.7.
4. Do problem 11 from section 6.7.
5. Do problem 13 from section 6.7.
6. Do problem 2 from section 8.1.
7. Do problem 5 from section 8.1.
8. Do problem 6 from section 7.1.
9. Do problem 27 from section 7.2
10. In MATLAB or your favorite computing language, use the SVD to compute a least squares solution to $Ax=b$, for a tall-skinny matrix A of independent columns. Compare the answer to backslash or equivalent.