

## Homework 5

**Reading assignment:** Chapters 12, 13, 14 in the textbook.

**Homework problems.** In MATLAB, Octave, and Julia, the command  $\mathbf{x} = \mathbf{A} \backslash \mathbf{b}$  is used to solve the least squares problem of minimizing  $\|\mathbf{A}\mathbf{x} - \mathbf{b}\|$ .

1. Exercise T13.3. The table is also available in the MATLAB file `mooreslaw.m` in the data file directory. Julia users can use `include("mooreslaw.m")`.
2. Exercise T12.12.
3. Exercise A8.3.
4. Exercise A8.11. The commands  $\mathbf{x} = \mathbf{A} \backslash \mathbf{b}$  and  $\mathbf{x} = (\mathbf{A}' * \mathbf{A}) \backslash (\mathbf{A}' * \mathbf{b})$  also work in Julia.
5. Exercise A8.12.