

### PROBLEM SET 3 (DUE: FEB 20, WED)

1. Do Exercise 1.5.4. in [OS18].
2. Do Exercise 1.5.19. in [OS18].
3. Do Exercise 1.6.7. in [OS18].
4. Do Exercise 1.6.13. in [OS18]. Here you may use 1.6.12. (Hint for (b): there exists such a matrix of size 2 by 2.)
5. Do Exercise 1.6.26. in [OS18].
6. Do Exercise 1.8.7. (a)–(f) in [OS18].

— More Exercises Suggestions (these are not a part of homework): 1.5.11, 1.5.14, 1.5.20, 1.5.21, 1.5.29, 1.6.9, 1.6.12, 1.6.23, 1.6.28, 1.8.4, 1.8.10, 1.8.13, 1.8.17, 1.8.18, 1.8.19, 1.8.21

#### REFERENCES

[OS18] Olver, P. J. and Shakiban, C., *Applied Linear Algebra*, 2nd ed., Undergraduate Texts in Mathematics, Springer, 2018.