Due date:
Friday, 2/26, **due 6pm, submit through Canvas**.

Instructions:
Students are encouraged to work together and discuss the homework problems, however each student must write up the solutions in their own words. Homework solutions should be well-explained, except True/False questions unless requested otherwise.

The format of HW is not restricted, but the PDF file is the preferred one.

Problem 1. Let $\mathbf{x}$ and $\mathbf{y}$ be distinct vectors of a vector space V. Show that if $\{\mathbf{x}, \mathbf{y}\}$ is a basis for V, then $\{\mathbf{x} + \mathbf{y}, 9\mathbf{x}\}$ is also a basis for V.

Problems in [1]:
Pages 103–105, problems 2.4.3(b,c,d), 2.4.5, 2.4.9, 2.4.21
Pages 109, problems 2.5.7(d)
Pages 118–120, problems 2.5.21(c), 2.5.24(b), 2.5.25, 2.5.26(b)

References

[1] Peter Olver and Chehrzad Shakiban, Applied Linear Algebra, 2nd Edition