

Homework 2 - Math 2568 (Autumn 2022)

Prof. Cueto

Due date: Friday September 9, 2022 (in class).

The sections and problem numbers refer to the course's textbook (L.W. Johnson, R.D. Riess, J.T. Arnold: *Introduction to Linear Algebra*, 5th edition, Pearson.)

Section	Assigned Problems	Problems to be turned in
§1.3	1, 4, 6, 10, 14, 19, 21, 23, 26, 28	4, 6, 14, 23, 28
§1.5	1, 8, 14, 22, 25, 29, 31, 34, 42, 48, 54, 68	8, 14, 25, 48, 68

Extra Problem: For what values of λ does the homogeneous 2×2 linear system with coefficient matrix

$$A = \begin{pmatrix} \lambda - 4 & -1 \\ 2 & \lambda - 1 \end{pmatrix}$$

have infinitely many solutions? For those values of λ , write down the solutions to the system in vector form.