

Proof SLE-2

Accepted

Not Accepted

I affirm this work abides by the university's Academic Honesty Policy.

Print Name, then Sign

- First due date **Thursday, September 23**
- Turn in your work on a separate sheet of paper with this page stapled in front.
- Do not include scratch work in your submission.
- There is to be **no collaboration** on any aspect of developing and presenting your proof. Your only resources are: you, the course textbook, me, and pertinent discussions that occur **during class**.
- Follow the Writing Guidelines of the Grading Rubric in the course information sheet.
- Retry: Only use material from the relevant section of the text or earlier.
- Retry: Start over using a new sheet of paper.
- Retry: Restaple with new attempts first and this page on top.

"It is by logic that we prove but by intuition that we discover." (Henri Poincaré)

SLE-2 (Section HSE) Give an example of an homogeneous system of three linear equations in the three variables x, y , and z for which the the null space of the coefficient matrix is the set

$$T = \left\{ \begin{bmatrix} 3y \\ y \\ 2y \end{bmatrix} : y \in \mathbf{C} \right\}.$$

[This set is not written in the form that occurs when using the solution technique in the text. So part of this problem is to show that the solution set, S , of your system of equations equals T .]
