

## Proof SLE - 1

Accepted

Not Accepted

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

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Print Name, then Sign

- First due date **Thursday, February 4**.
- 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.

*"Mathematics is the language with which God has written the universe"* -Galileo Galilei, physicist and astronomer (1564-1642)

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SLE-1 (Section TSS)

Suppose a system of linear equations is known to have at least one solution and that the coefficient matrix has a column of zeros. Prove that the system has infinitely many solutions.

[Note: You should first prove that any elementary row operation on a matrix with a column of zeros produces a matrix that also has a column of zeros. ]

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