

Lecture 10 Problems

Problem 1

(a) We know there can't be more pivot columns/rows than there are rows and columns, thus $r \leq \min\{m, n\}$ by the secret bit of info and lecture 9 notes, $r \leq m$.

(b) y has elements of $\text{N}(A^T)$, which has > 0 elements since by definition there must be at least one vector in the null space.

Problem 2

Left nullspace