

Math 218D

Quiz 5

1. Find the projection matrix P_V for the subspace $V = \text{Nul}(1 \ 0 \ 2)$.

2. Determine if the following statements are **True** or **False**.

a) ____ : Let A be an invertible matrix then $(A^T)^{-1} = (A^{-1})^T$.

b) ____ : $\text{Row}(A)$, and $\text{Null}(A^T)$ are orthogonal complements.

c) ____ : $\text{Col}(A)$, and $\text{Null}(A^T)$ are orthogonal complements.

d) ____ : Let A and B be matrices such that $Ax = Bx$ for all $x \in \mathbb{R}^n$ then $A = B$.