DATE. NO.

1-(d)

20221396 이재민

$1 \le i < j \le n$인 모든 i와 j에 대하여 $\lambda_i \neq \lambda_j$면 determinant of A가 non-zero이다.

1-(e)

Let A^+ be a pseudo inverse of A.

From the definition of pseudo inverse, the following properties hold.

* $AA^+A = A$ * $A^+AA^+ = A^+$

When A has linearly independent columns, A^+ can be computed as $A^+ = (A^TA)^{-1} \cdot A^T$.

By using this condition, we can compute w as follows

$y = Aw$

$A^Ty = A^TAw$

$(A^TA)^{-1}A^Ty = w$

$A^+y = w$