

姓名: _____

葉均承 應數一線性代數

學號: _____

Quiz 7

考試日期: 2026/04/15

不可使用手機、計算器，禁止作弊!

1. Find the projection matrix for the plane $2x + y - z = 0$ and then find the projection of $[2, 1, 3]$ on the plane.

Answer: _____

2. Find the least squares solution of the given overdetermined system $A\vec{x} = \vec{b}$.

$$\begin{bmatrix} 1 & 2 \\ 1 & 1 \\ 2 & 3 \end{bmatrix} \begin{bmatrix} x_1 \\ x_2 \end{bmatrix} = \begin{bmatrix} 3 \\ 1 \\ 3 \end{bmatrix}$$

Answer: the least squares solution is _____